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UNITED STATES DEPARTMENT OF AGRICULTURE Weather Bureau - Bureau of Agricultural Economics

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA For the Week Ending Tuesday, June 8, 1937.

Issued jointly by the Division of Grep and Livestock Estimates and the Weather Bureau. Fourth Floor, Fodoral Office Building, Lana, Mintana. Offices:

Widespread wind and dust storms on the 2nd and 3rd were followed by cool, cloudy, and showery weather during the week ending Tuesday, June 8th. Snow covered the higher elevations, and in the Red Lodge area damaged trees and shrubs with a wet 8-inch fall. Subnormal temperatures brought light to heavy frosts to lowlands in the west, but damage to respect tion was alight. in the west, but damage to vegetation was slight.

Showers in amounts varying from $\frac{1}{2}$ to $2\frac{1}{2}$ inches materially benefitied the southern third of the State, but were mostly too light and too spotted in the northern two thirds east of the Divide to prevent further severe drought and soil-blowing damage to crops and ranges, and relieve a rapidly becoming serious livestock situation. Soils were reported blowing and damaging dryland crops in northern and eastern drought districts with only moderate winds. Recent duststorms in the northeast are the most severe of record for that region.

While the showers greatly improved prospects for growing crops, and made possible planting of late feeds, temperatures during the week were much too cool for normal growth. Garden and truck crops were particularly backward. Irrigated crops were reported only fair in the northeast, and generally good in other sections. The outlook for dryland crops from Toole, Chouteau, and the northern portion of Cascade Counties to the Dakota Line remains decidedly unfavorable with most of the grain crops now considered beyond help other than making feed even if good rains occurred. Exodus of farmers from the drought-stricken northeast is reported increasing.

Winter wheat has improved in the south, although much has advanced too far to be materially helped by recent rains. It is good in the extreme northwest, but is heading short and in fair or poor condition in most other sections. It is reported largely a failure in Chouteau County. Winter rge is also heading; stands are fair. Spring wheat is showing up better since the rains, and is suffering less than oats, and barley in the drier districts. More rains are needed badly for spring grains over most of the State except the extreme south, as well as for ranges, pastures irrigation, forest-fire protection and filling of stock water lokes. Peas under irrigation in the west are good. It has been a little too good this week for good growth of sugar beets, and in some of the more southern discricts foo wet at times for thinning and cultivating. Apple and cherry crops appear in normal condition.

Pastures and ranges improved in the south as a result of good showers, but deteriorated in the north because of drought and duststorms. Little good grass is to be found east of the Divide except in a few south-central districts. New seedings of grass are expected to improve in the south, with progress generally to date only fair.

Livestock are in fair condition in the northeast, and mostly good elsewhere. Additional movement of livestock continues from the drought areas and may become heavy soon with further lack of moisture and decline of the range. There has been some loss of young stuff in the northeast from lack of milk in ewes and desertion by cows. Weather conditions during the week were unfavorable for shearing, which is beginning to get under way generally and will probably reach a peak within the next two weeks. next two weeks.

Rains helped summerfallowing and retarded grasshopper hatching. Cricket actaivity was somewhat subdued by the cold wet weather. Government financed cricket control work was discontinued on June 5th for lack of funds.

WEEKLY TEMPERATURE AND PRECIPITATION DATA

Station	Temperature		Total Precipitation		Sunshine
	Highest	Lowest	This Week	Since April 1.	Percent of Possible
Billings	77	33	1.06	2.34	*
Bozeman	73	34	1.30	4.54	*
Cut Bank	έξ	33	0.64	1.74	*
Fort Peck	82	39	0.01	0.75	* -
Glendive	84	37	0.37	0.97	*
Great Falls	90	37	0.44	0.93	*
Havre	88	ήO	0.14	0.94	රිවී
HELENA	81	35	0.73	1.59	48
Kalispell	86	36	0.26	2,48	70
Lewistown	85	36	0.47	1.46	₩
Malta	95	35	Ţ	1.02	*
Miles City	78	4 <u>0</u>	0.43	2.03	52
Missoula	86	36	0.30	2.19	66
Poplar	84	31	0.08	0.56	₩

* No data

Series - 1937 - Nc. 9. Helena, Montana.
June 8, 1937.



The following county summaries of crop conditions for the week ending June 5, 1937, are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service:

BEAVERHEAD Past two days colder with some precipitation in scattered sections throughout the county; moisture needed. Irrigation water supply low. Crops fair to good to date. Shearing started with a few small flocks; no activity in wool. Livestock in good shape. Cool weather slowed up hopper hatchings.

BIG HORN Precipitation during the week has ranged from one inch to two and a half inches in Big Horn County. This has improved the growing conditions trem endously as all crops were suffering from lack of moisture. Winter wheat has improved and is looking good. Spring wheat is beginning to show up better. Valley doing well though the temperature is somewhat cool for the best progress of sugar beets and wet weather has delayed thinning and cultivation. The range is improving rapidly with the recent rains. Cattle in fair condition. Sheep shearing begun. Crickets slowed up by rain. Grasshoppers reported in places but apparently very little damage done. Poisoning going on in some places.

BLAINE No precipitation. Cool with extreme winds during the entire week. On May 28th the worst wind and dust storm in the history of the county did considerable damage to both dry land and irrigated crops as well as some buildings. Crop conditions very poor on dry land and just fair on irrigated. Many fields that have not blown prior to this week are damaged severely from soil blowing. Even if sufficient moisture fell within the next two days crop prospects would only be fair for the entire county. Range grass disappearing rapidly on account of drought. Only feed available is in coulee bottoms. Stockmen planning to ship to market or new range within a short time.

CARBON Precipitation general throughout the county. Half inch of precipitation fell in the Bridger area, heavy rains at Belfry and a total of $2\frac{1}{2}$ inches of rainfall in the Red Lodge area during the week. Weather cloudy and cool. Snows in the western portion of the county. Thinning of seets almost completed. Grass conditions very good, range grass seeding at an early date. Dry land wheat now beginning to head cut, alfalfa making a good growth. Some rye fields headed out. Crickets continue unabated. Mormon cricket project called off. Mixing of grasshopper pait continues and the demand for same is fairly general all over the county. Livestock in fair condition.

CASCADE .03 inches of precipitation the past week together with cool cloudy weather has temperarily checked crop and range damage from drought.

Continued rains will be necessary to improve crop conditions. Grasshopper cutbreaks are reported in large numbers in practically all parts of the county and crickets continue to threaten any crop prospects existing in the southern part of the county. Effective work has been done in controlling these insects through the spreading of sodium arsenite dust and lime, with the assistance of WPA crews. All poisoning operations were terminated Saturday due to lack of funds. Crops on irrigated land appear to be about normal and if the water sumply holds out the prospects for good crops in that area are promising. Livestock are in fair condition, but many farmers and stockmen are making plans to move their stock to market in the very near future unless conditions change.

CHOUTEAU Continued dry with a little rain i. sections but not enough to do any amount of good to the crops. Few warm days. Continued winds. Winter wheat in many sections reported as a complete failure. Spring crops need moisture. Outlook for crop very unfavorable. Ranges suffering from lack of moisture out in sections where there has been an occasional snower the grass is improving. Mormon cricket infestation very heavy. WPA crews taken off today. Situation very serious.

CUSTER-POWDER RIVER Much cocler with light showers and rains. Southern Powder River County reports nearly 2 inches of rain the past week. Some high winds carrying foreign dust. Soil wet down about 4 inches. Growing conditions of all crops much improved and safe for the present. No certainty yet of either feed or grain crops on dry land. More moisture needed later to insure any crop. Some planting of late forage crops. Growth of alfalfa good but slow. Sugar beets up and thinning started. Irrigation continues heavy. Grass conditions on south side much better since rains. North country still Trass only in coulees and water somewhat short. North side mostly sheep range. Late grass should make a start. Early feed good in southern Powder River County. Cattle bicking up and beginning to shed off. Sheep and lambs fair to good, but lamb crop much shorter than expected. Grasshoppers quite prevalent but doing no apparent damage at present. Poisoning operations to start scen. Crickets on the move in south country and doing some damage to cultivated crops. Dusting operations now in progress only within boundary of National Forest.

DANIELS Only .04 inches precipitation thus far in June. Continue drought and heavy winds has seriously damaged crops in county and completely destroyed a large percentage of crops. Recent dust storms most severe on record. All field work has been discontinued pending rainfall. Emergency feed crop will be planted should ample rainfall occur within ten days. Early seeded wheat where protected from wind in the boot is less than six inches high. Some stockmen in search of pasture located good feed northeast of Minot, North Dahota, and expect to commence shipping next week. The heavy wind May 28th severely damaged the native grass and range throughout the county. No grasshouser damage reported.

DAWSON The week closed with some precipitation following wind and dry conditions. The moisture was in the form of scattered showers but covered the county fairly generally. The benefits are apt to be temporary. The benefits to creps from the moisture will probably not hold over for any considerable length of time, although conditions are more favorable than previously. The ground was scaked only to a shallow depth but probably sufficiently to bring on late planted corn and other seeds which have not germinated. Grasshopers are appearing in ratherally required.

- (Continued on Pere 2).



FALLON-CARTER Over one inch of precipitation in the past week. Moisture conditions fair. Orop conditions greatly improved. Considerable acreage of feed crops to be planted. Grasshoppers still a menace to crop and range. Grass conditions improved. Lambing nearing completion. Shearing operations are under way. A few small bands being sheared. Shearing operations will be in full force within the next two weeks.

FERGUS Crops holding due to cool weather and light shewers in most parts of the county. Some heavy showers in small areas have been of some benefit. Precipitation .22. Some shortage of eed and water in sections. Showers may improve feed situation some, but not water.

FLATHEAD Weather has been cool for this time of the year with some local frosts. Growing conditions have been good for all small grains and peas, but a little backward for garden and truck crops. Winter wheat is just beginning to head and prospects for a high yield are good. Spring grains are stooling a little more than normal, which is desirable if we continue to have enough moisture for good growing conditions. Cutworms have been reported very numerous in most communities, out their damage has been confined largely to new stands of alfalfa, sweet clover and gardens. The high water stage of most streams is past and reports are coming in from out-lying districts that many of the streams and run-offs used for irrimeadows have been very low or entirely dry so that the prospective tonnage of hay will be lighter this year than normal. The condition of livestock continues to be good. Pastures and ranges are generally good, but there is no surplus available for outside stock.

GALLATIN Lower average temperature, increased cloudiness and rain latter part of week. Beneficial precipitation in scutheast portions. Small benefit in west and north portions of county. Every available amount of irrigation water now being used in an effort to get all crops watered before the later right ditches are shut off. Crops generally showing good growth except for west portion of county where they are showing effects of drought. Irrigation of spring grain and peas started this week. Indications point toward a good first cutting of alfalfa. Other crop prospects are dependent on the season and the supply of irrigation water. Farm flock shearing continues and a few range bands are already shearing. Pastures somewhat dry in north and west sections of county.

GARFIELD-PETROLEUM Trace procipitation and cooler. Grops in a few scattered localities could still produce feed with abundant moisture. Serious loss due to soil drifting and drought apparent. Late seeding partly drifted and destroyed by winds. All seeding of late feed crops including much corn not seeded as usual due to lack of moisture. Ranges drying up.

GLACIER Severe wind storm Wednesday night followed by general showers rest of week. Weather generally cool, freezing ice at night. Moisture excellent in northern part of county, not so good in southern part. Moisture condition is not critical in Glacier. Some fields badly drifted and others badly wind whimped during week. Grops generally in fair condition. Shearing commencing. Livestock generally in good shape. Deficiency in reliable farm labor. A few reports of hoppers hatching along fence rows.

HILL A trace of precipitation for the past week. Continued dry weather with some winds during the week. Wheat is hanging on in fair shape. Barley, rye and oats suffering. Grass conditions very poor. Rain needed soon or livestock will have to be moved out shortly. Livestock in just fair condition.

JUDITH BASIN Precipitation slight and scattered. Temperatures low. Wind excessive and very damaging to crops. Growing conditions poor. Grops have suffered seriously from soil erosion and drought. Grasshoppers and crickets very numerous. Range has turned brown except in coulees and places where run-off occurred last spring. Some livestock has already been shipped to feed. If prevailing drought continues more will go in the very near future.

LAKE Scattered showers throughout the county. Temperatures below normal. Growing conditions fair. Winter wheat starting to head. Peas doing exceptionally well. Irrigation in full progress in all sections. Beet thinning progressing. Ranges in good condition. Surplus of labor coming in from drought stricken counties. Grasshoppers are reported numbrous in southern part of county. Mormon cricket control progressing rapidly.

LEWIS & CLARK-BROADWATER

Scattered showers in both counties but insufficient to be of much help to crops and grass. Grops at relative standstill during week because of cccl weather. Showers freshered crops but had small permanent value. Emergency feed crops will be planted if moisture conditions improve. Some spring wheat has not come up for lack of moisture. Burning evident in spots in all dry land grain crops. Irrigation water sumplies being reduced fast. Generally considerably less irrigation water available this year as compared to a year ago. Livestock in fair condition. Pastures getting short due to drouthy situation. Some operators seeking pasture outside of county. Feed sumply outlook not promising. Grasshopper prospects indicate considerable possible damage. Poison supplies delayed.

MADISON-JEFFERSON Intermittent showers during most 48 hours have improved growing conditions for grass and some crops in most of Madison County, but so far have done very little good in Jefferson County. Weather has been unseasonably cocl. Moisture so far has not been sufficient to insure normal stands of grain and peas and a normal hay crop. Stands of grain and peas very thin and spotted over entire area due to lack of moisture for germination. Many farmers attempting to irrigate crops and potatoes to get them up. Shortage of irrigation water and reserve snow supplies in mountains alroady very noticeable. Showers brightening livestock outlook in Madison County somewhat, but a great deal more moisture needed to bring about permanent improvement. Late lambing practically completed. Most stockmen moving cattle to summer range. Grasshopper outbreaks very serious with reports of Mormon cricket infestation coming in from widely scattered localities.

(Continued on Page 3)



MISSOULA Hot and dry first of week. One fifth inch of rain on third. All nonirrigated soils very dry. All crops suffering from lack of moisture
where not irrigated. Spring grains backward and damaged by drought. Irrigation
water will be short in all districts not supplied by the Missoula River. First
crop of hay will be short due to cold dry weather this spring. Apple and cherry
crops appear normal at this time. Lower pastures drying up. Higher ranges O.K.
Cattle gaining in condition.

MUSSELSHELL-GOLDEN VALLEY Two days of extremely high winds. One of them on June 3rd ended up in rain that covered both counties. .25 inch of rain fell during the afternoon and evening. Showered all day June 4. Winter wheat has been hurt by the continuous drought, and is damaged at least 50% of what it would have been, had we had moisture. Spring wheat showing effects of drought, but not damaged seriously as the winter wheat. Livestock regaining due to the increase of new grass. Several areas showing the effects of the drought.

PARK .75 inch rain end of week very beneficial to crops and grass. Prospects are spring crops of alfalfa on old stands. New seedings of grass and late spring crops have been at a standstill, but recent rains should start them nicely. Early seed grain in good shape. Livestock in fair condition. Some demand for experienced irrigators. Heavy infestation of grasshoppers over most of county. Cricket control being held up due to shortage of funds.

PHILLIPS Continued dry and cool. Last week's wind blew out dry land crops over large areas. Moderate winds this week. Dry land crops at standstill. Irrigated crops coming slowly. Alfalfa doing well. Beats and potatoes backward. Hoppers hatching in dry land and valley, but no damage observed to date. Control measures being taken. Range burning and making no further growth. Livestock condition about same as last week. Stockmen will have to ship soon if it doesn't rain. Some poor calf crops reported.

PRAIRIE Severe dust storm Thursday followed by .25 inch of precipitation in the southern part of county and none in northern part. Soil blowing and drought have taken 50% of visible crops in county. It will take considerable moisture to make even feed of the balance. Grasshoppers hatching in all communities, particularly on range and idle land and along fences and roads. No crickets as yet. Livestock in fair condition. Ranges are very poor in western part of county. Lambing completed with fair to good percentage being saved. Shearing is getting under way. Little activity in woolmarket.

RICHLAND Weather has continued very dry throughout entire week with slight precipitation on Thursday evening, but not of sufficient amount to help crops except to lay the dust. High winds caused considerable soil blowing. Dry land crops are suffering and feed is becoming short. All grain crops, except corn, have been planted. Many farmers are holding off on the further planting of corn on account of the extremely dry weather. Reports from all parts of the county indicate damage by cutworms to corn, grain and garden crops is greater this spring than for several years. A few farmers have already started selling livestock in areas where feed is short. However, to date no great amount of livestock has been moved. Livestock in general only in fair shape. Reports from a few farmers to date are that calf crops are below normal. Grasshoppers beginning to hatch in a few communities. Quite large numbers have hatched but are not at a damaging stage yet.

ROOSEVELT Continued drought with high winds doing damage to crop, and ruining fields. Many farmers reporting that all hopes of a grain crop are gone. Feed crops still a possibility, if rains come scen. Pasture and range situation acute. Many cattle going to market. Interest in development of water conservation projects increasing as need becomes greater. Hoppers hatching in damaging numbers but farmers are not interested in control as long as crop prospects are so poor.

ROSFBUD Gccd rain over south half of county. Rainfall varied from less than a quarter inch to more than one inch. Gccl, cloudy weather temporarily halted further deterioration of crops and range even where rainfall was lightest. Most winter wheat too far advanced to be materially revived by recent rains. A limited acreage of spring grain now has a fair chance to make a crop. All livestock doing well except in extreme northeastern part of county where very little grass had made a start. Rains will practically insure sufficient grass over south half of county. Some blister beetles have made their appearance during week.

SANDERS Windy and cocl with light frosts. Light scattered showers. All dry land crops badly in need of rain. Crops very backward account of cold, dry weather. Wheat heading out very short. Outlook for very poor crop. All spring grain backward and making little growth. Hay meadows poor and starting to dry up on dry lands. Peas under irrigation the only crop making satisfactory growth. Livestock in good condition. Range drying rapidly.

SHERIDAN Continued dry, few light showers, soil blowing continues, continued cool with one hot day. Crops in general are deteriorating rapidly. Some fields however will recover if sufficient moisture received soon. Some movement of livestock to market has begun. No demand for labor. Farmers are beginning to move out in large numbers. This movement began last fall but is increasing now. Grasshopper hatch much later than usual. WPA mixed bait will be available within a week at four stations.

STILLWATER Moderate temperature with considerable wind early in week. .89 inch of rain during week at Columbus with considerable more in different parts of County. Heavy dust cloud on June 3rd. More moisture needed to complete crop. Growing conditions good. Hoppers reported more numerous in parts of the county. Some damage reported. Cricket control work in progress it six projects until Friday, when all cricket work in State shut down. Grass greatly improved in all areas. Livestock in better condition than for some time. Pasture looking better.

SUN RIVER IRRIGATION PROJECT Rising temperatures throughout the week. Maximum 85. Some irrigated fields coming up spetted. Stands where fields fall irrigated and irrigated early in the season are about normal. Grasshoppers hatching cut in large numbers.



SWEETGRASS Precipitation 1.31. General growing conditions slow, too cool and cloudy. Have ample moisture for present. All crops will make rapid growth as soon as weather warms up. Livestock doing well on pastures. Shearing getting under way. Insects have been retarded on account of cool, showery weather. Crickets growing and spreading. They would have eliminated several crops had it not been for the control campaign. Grasshoppers hatching slowly and not growing very fast, consequently little damage from this source has occurred to date.

TETON Another bad wind the first part of week which did considerable damage to crops. Temperature reached 85 middle of week. Thursday and Friday .37 inch precipitation at Choteau with scattered showers throughout the County. Saturday showers most of the day. Days mostly cloudy with cool nights. Gross in bad shape. Some grain has been cut off three times by wind. Considerable amount of that which is up is spotted. Fields badly in need of moisture. Grasshoppers doing some damage, poisoning operations started on small scale. Ranges were in poor shape, but showers clong the mountains this week have helped wonderfully. Livestock still being moved to market, (farm herds). Water supply short.

TOOLE Heavy winds and light scattered showers. Showers not of material good. Grains still holding up fairly well but badly in need of rain. Some cutworm, wireworm and grasshopper damage being reported. Range grass that was green two weeks ago has turned and is thoroughly dried. Labor plentiful.

VALLEY Continued dry weather with wind storm of 63 mile velocity recorded at the weather station at Fort Peck. This did more damage to crops, grass land, and buildings than any other wind we have had this spring. Fore part of week there was very little wind, much warmer weather. Growing conditions very unfavorable. Very little crop left in the county, with rain feed may be obtained. Grass beginning to burn in coulees. Considerable range land has been blowing. Beets just beginning to come up. Flue Joint has fair chance of making crop under irrigation. Alfalfa spotted but doing fairly well considering conditions. Livestock men beginning to look for summer and fall pasture as well as winter quarters to move catt the and sheep to. Lambing nearly over with very good lambs but large percentage of dry ewes and lambs being lost at this time because of lack of milk. Calf crop in general good. Water for stock is not a problem yet. No labor needed. Grasshoppers hatching out in some areas with a few reports of cutworms.

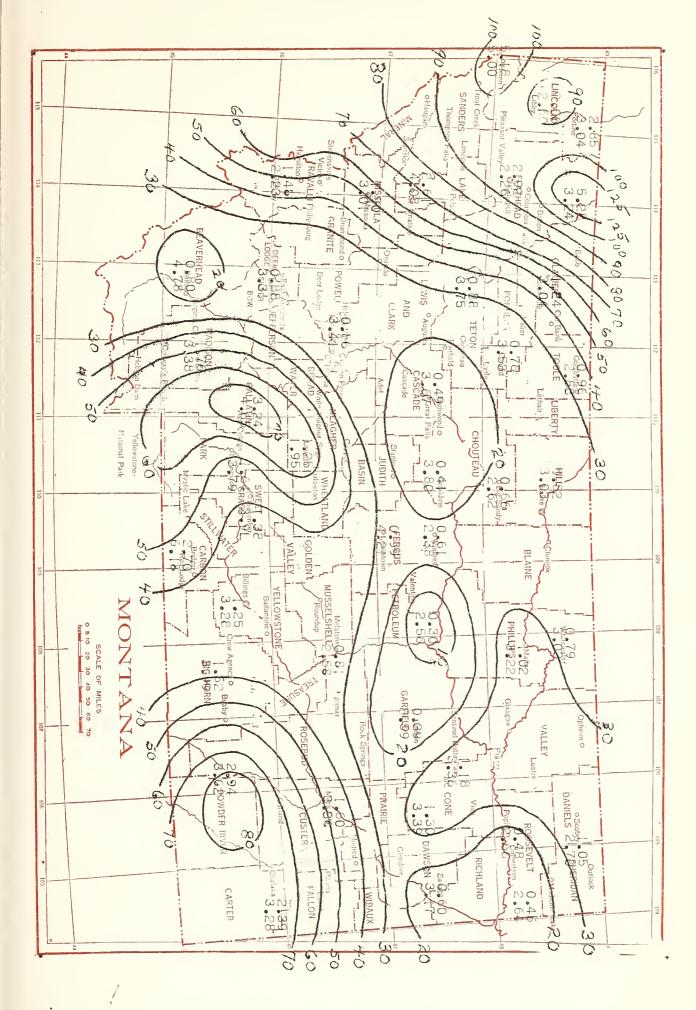
WHEATLAND Windy first part of week. General rain throughout the county latter part of week. Temperatures low. Soil easily blown with slightest breeze. General rain improved crop conditions, helping to stimulate growth.

WIBAUX Cool weather during week. Rains May 29, 30 and June 2, 3 and 4. Total precipitation at Wibaux for the period: 1.31 inches. Rain came very slowly and all moisture was absorbed. Growing conditions excellent, but it looks as though a large percentage of the wheat crop has already been ruined because of soil blowing, drought, cutworms and grasshoppers. There is now a good prospect for feed crops except for grasshoppers and cutworms. There will be planting of emergency feed crops the remainder of the month.

YELLOWSTONE Precipitation 1.01. General growing conditions improved due to rain and cool weather. No wind to speak of during the week. Irrigated crops all looking excellent. Beets mostly thinned and blocked and prospects are for a record crop this year. Beans and corn up and looking fine. Alfalfa in most areas good. Winter wheat on south side of river excellent with crop assured as far as moisture is concerned. Rains on north side of river have alleviated the droughty conditions considerably and prospects are for better than half a crop at present time. Some livestock has been sold and moved but rains have greened up the grass and have filled some water holes. Mormon cricket situation acute with all labor off, especially difficult to try to held crickets to south side of the river. One more month of intensive work would practically eliminate crickets in Yellowstone County.

MEAGHER No improvement over last week, continued dryness. Grass either burning or at a standstill. Temperature unseasonably low most of week. Pry land grain beginning to burn almost uniformly over entire county, even irrigated ground snowing effects of dry weather. Lambing finished, docking finished, first shearing began the 2nd. Livestock doing well. Supply of labor approximately equal to demand. Prospects continue very poor for the coming season.





This map shows the recentage of normal precipitation that has occurred in Montana during the first two months, ipril and May, of the 1937 crop growing season

The upper of each typed pair of figures indicates the actual amount of precipitation that occurred in that respective area during April and May; the lower figure of the pair indicates the normal precipitation for April and May.

Up to 100 per cent of normal, lines are drawn for each 10 per cent; over 100 per cent of normal, lines are drawn for each addit onal 25 per cent.

U.S. Weather Eureau Halena, Montana



UNITED STATES DEFARTMENT OF AGRICULTURE Weather Bureau — Bureau of Agricultural Economics

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA For the Week Ending Tuesday, June 15, 1937.

Issued jointly by the Division of Grop and Livestock Estimates and the Weather Bureau. Offices: Fourth Floor, Federal Office Building, Reseas, Pentana.

Heavy to excessive rains fell during the week ending Tuesday, June 15th over almost the entire State, breaking the present seasonal drouth in all sections with the exception of limited extreme west-central and extreme northeastern districts. More precipitation has fallen over much of central and eastern Montana since the first of June, and in numerous instances during three or four days of the past week, than has occurred during the preceding five to nine months. June rainfall to date varies from 0.53 inch in the Missoula district to 4.64 inches in the Billings district, with central Montana generally averaging from 2 to 4 inches. Circle, McCone County, reported a steady 4.47 inches rain in 24 hours ending at 8:00 P.M. June 12th.

The heavy precipitation relieved an acute livestock situation in northern and eastern Montana by replenishing streams and waterholes, assuring early revival and continued growth of pastures and ranges, and postponing need for further immediate liquidation or moving of livestock. The rains substantially increased the amount of water available for irrigation, as well as stored up favorable reserves in summerfallowed fields for the 1938 growing season. The rains put an end to soil blowing, and with cool weather kept grasshoppers and crickets in check. Excessive downpours in Valley, Musselshell, and Yellowstone counties caused floods, with damage to crops and property estimated somewhat in excess of \$1,000,000.

While moisture conditions were the most favorable of the present growing season, cool, cloudy weather continued to retard the growth of most vegetation. Hail damaged irrigated crops in northern Park County, and frosts and freezing temperatures injured potatoes and gardens slightly in several western and central districts. Crops and ranges improved generally except in Missoula, Sanders, and Lake counties, where lack of adequate moisture caused further deterioration of both dryland and irrigated crops.

Winter wheat, which survives, is weedy, has been heading short, and has largely advanced too far to be greatly benefitted by the good rains. Irreparable loss has occurred to much of the spring wheat and other spring grains from drouth and soil blowing. The remainder of the spring grain crop has improved and at present shows a fair to good condition, though rather spotted. Much ungerminated and some badly blown fields are expected to come along now, and produce, if later growing conditions continue favorable. Improved moisture conditions have encouraged planting of emergency feed crops generally, with much millet, corn, sudan grass, oats, and barley expected to be planted between now and the first of Jaly. Beet thinning is nearly completed. Peas have been coming along slowly and need warm weather. Part of the pea crop is poor because of unfavorable germination conditions earlier. The fruit crop continues normal development.

Alfalfa growth has been slow; the first crop will be generally below normal. Other grass has shown improvement, but will probably need another week to show well in the north and east. Rains have placed soils in good condition for the seeding of alfalfa, sweet clover, and pasture grasses.

Livestock are in fair to good condition. Some are thin in the northeast, where range conditions have been extremely poor. Shearing has been delayed by rains Cold and wet weather have been hard on lambs and newly shorn sheep, but no losses have been reported.

WEEKLY TEMPERATURE AND PRECIPITATION DATA

	Temperature		Total Precipitation		Sunshine
Station	Highest	Lowest	This Week	Since April 1.	Percent of Possible
Billings	80	46	3.69	6.00 #	*
Bozeman	72	39	2.32	6.86	*
Cut Bank		31	3.58	5.32	*
Fort Peck	83	46	2.17	2.92	*
Glendive		46	2.46	3.43	*
Great Palls		39 40	1.79	2.73 #	*
Havre		40	2.62	3·5 ⁸ #	60
HELENA		3,7	0.90	2.49	23
Kalispell		44	0.94	3.42	38
Lewistown		32	2.49	3.95	*
Malta		44	3.61	4.63	*
Miles City Missoula	. 82 . 76	5 ^ 40	1.21	3.24	54
Poplar		46	0.23	2.43 #	3 <u>U</u>
#Including corr			0.53	1.09	*NTO do+o

#Including correction for last week.

*No data.

Series - 1937 - No.1C. W. E. Maughan, Weather Bureau. Helena, Montana. Jay G. Diamond, Division of Cr

Jay G. Diamond, Division of Crop and Livestock
Estimates.

June 16, 1937.

are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service:

BEAVERHEAD: General rain over county during past week; weather cool. Crops aided by moisture; stored irrigation water being used; crops good with alfalfa slow. Shearing delayed due to rain. No activity in wool. Ranges revived by moisture and grass good. Fair to good lamb crop. Cutside livestock being brought in for summer pasture in Big Hole section. Poisoning of hoppers in Dell and Lima district started but weather unfavorable.

BLAINE: 2.65 inches of rain fell during the last 36 hours and still raining. Crop and growing conditions up until Thursday night were very poor. Present moisture will improve conditions immensely. Hoppers and blister beetles have been doing some damage to crops the past week. No improvement in livestock conditions since last week. Present moisture will restore the range grass within a short time. Stock shipments will not now be necessary.

CASCADE: Heavy rains have changed the crop picture completely. Glass to run stock most of summer new assured. Water supply for irrigation section new guaranteed and crops in these areas look good. Large planting of emergency feed crops will follow these rains and farmers feel very optimistic. Mormon cricket and grass-hopper control work temporarily at a standstill.

CHOUTEAU: Scattered showers over the county. Moisture will help considerably for the ranges and the late spring grain in some sections of the county. Winter wheat practically all gone with the exception of a few fields. Spring wheat in some sections coming along since the rain, but will need considerable amount of moisture during the rest of the growing period. Livestock in fair condition. Little movement of stock at this time. Ranges improving with rain. Mormon cricket infestation still very heavy. W.P.A. crews forced to stop because of lack of funds.

CUSTER - POWDER RIVER: Generally cooler, with local showers. Powder River County reports half inch of rain latter part of week. Growing conditions much improved. Spring grain crops now have a chance to make feed. Grain prospects yet uncertain. Winter rye headed out and will make good hay, although acreage very small. Some millet and sudan grass going in. Beets mostly thinned. Irrigation water still sufficient. South side range improving. North country still poor; grass only in coulees. Cattle continue to put on flesh. Sheep and lambs fair to good. Lamb crop turned out rather poor. Grasshoppers present in some areas, but no damage reported. Cricket control project called off in Forest area, but was only on a small scale.

DANIELS: Precipitation 0.25 inch night of June 10, making a total of 0.29 since June 1. Not sufficient to be of material benefit to crops other than washing off dust coating. Crop conditions have been deteriorating daily past week; first indication of general damage through drouth; previous to that principal damage has been from severe winds. Sufficient rainfall during the next week will provide some feed crops, otherwise farmers report total crop failure. Both water and grass lacking for livestock; arrangements being made to ship 600 or more head to Dakota points. Others seeking pasture elsewhere or must sell soon to save stock. Farmers seeking any available employment to provide means of sustenance. Come hoppers hatching in sheltered areas; no damage to crops or range reported from latter.

DAWSCN: With 1.33 inches of rain reported today (June 12), which undoubtedly will wet both the crop and prairie land to a depth that should be of material benefit to the grass, and unless conditions turn out very unfavorably will revive a good area of crops and no doubt furnish winter feed for livestock, and should also be of some advantage in the controlling of soil blowing, particularly if a covering of grass is obtained on the crop lands. The movement of livestock out of the county had started and just what effect the present rain will have cannot be accurately foretold. While no reports from the interior of the county have been received, it is quite probable that a number of flood irrigation projects should be functioning and will provide added insurance of feed crops.

FALLON - CARTER: 0.13 inch precipitation during past 24 hours. Moisture conditions fair. Temperature moderate. Crop conditions fair to good. Some cutworm damage reported in different areas. 15% and above crop acres destroyed by wind ercsion. Showers this past week have helped moderate wind conditions. Stock showing condition fair to good and grass growth excellent.

FERGUS: Precipitation 2.49 inches. Heavy rains during past 3 days over entire county. Many crops revived which otherwise would have been complete failure soon. Some crops badly damaged by wind may even show partial recovery. With ranges well soaked in most sections, grass should improve enough to bring stock through the summer or at least to a marketable condition. Water holes are filled so stock can make better use of present grass. Livestock men generally are hopeful that stock can be kept. Grasshopper poisoning started. Cricket control has been held up by weather.

FLATHEAD: Weather cool with three general rains over the county during week.

Small grains and alfalfa making good growth. Mountain meadows have been short of water and will need continued rains during the summer to make a normal crop Peas need warmer weather to make the most rapid growth. Truck and garden crops somewhat slow. Some potato fields have been damaged by frost. Crops that were damaged by soil blowing will revive after these rains in most areas. The condition of livestock is good, with pastures and range green and producing lets of feed.

GALLATIN: Week cool, cloudy, with good precipitation, particularly around Bozeman.

Lesser amounts in west portion of valley. Crops generally making good growth in spite of cool weather. Some gardens damaged by frost in higher sections.

(Continued on Page 2.)



County Summaries of Crop Conditions for the Week Ending June 12, 1937 - Page 2.

GALLATIN: (Cont'd.) Irrigating continues in full swing. Winter wheat prospects improved. Pastures in ideal condition except where overgrazed. Indications point to a full supply of irrigation water for a longer period than last year. Range shearing continues.

GARFIELD - PETROLEUM: Cool, cloudy, with frost in some areas. Insignificant scattered showers. Growing conditions very poor because of drouth. 75% seeded crop has been ruined to the extent of impossible recovery due to drouth and high winds. Remaining 25% at a standstill due to cool conditions and lack of moisture. Cattle and horses, condition fair to good, with grass in most areas sufficient to carry the depleting numbers at least another month or until fall. Sheep in southeast Garfield County will have to be moved from present ranges, and some loss due to lack of grass has already been reported. Ewes will not properly carry their lambs under the prevailing conditions.

GLACIER: Moisture conditions in northern and western parts of county excellent.

Weather generally cool and cloudy, with a number of local showers during the week. A good general rain falling over county (June 12). Precipitation from 4:00 A.M. to 3:00 P.M., 2 inches. Crop conditions good. Plenty grass in northern and western parts of county. Shearing going on. Some deaths among sheared sheep shipped into county. Scattered reports on serious hopper outbreaks.

HILL: 2.65 inches precipitation for the past week. The rain of the past week will improve conditions considerably in this county. Ranges will be improved by the recent rains. Livestock in fair condition.

JUDITH BASIN: Cool and cloudy most of week. Growing conditions slightly improved. A rain of 1.04 inches fell Thursday evening, which will improve moisture conditions materially. Precipitation has been scattered throughout the county the past week. The mountain section has received several showers and is improving steadily. Winter wheat so far is not looking favorable. Spring wheat, especially late plantings, appears to have a good chance of making a crop if moisture conditions improve. Soil blowing has not been as extensive the past week as the week previous. Recent rains will improve range slightly; additional moisture needed, however, to maintain grass. Stockmen are beginning to look for market for cows and calves.

LAKE: Light frosts early in week did some damage to tender garden crcps; no damage reported to any field crops. Weather has been cool for this time of year, with comparatively little sunshine. Intermittent showers during week have improved growing conditions of all the crops. Moisture hasn't fallen in sufficient amounts to insure maturity of winter grains. Irrigation water supply is going to be below normal. Ranges and pastures improved with showers. Beet thinning in full swing. Livestock in good condition. Grasshopper and Mormon cricket work progressing satisfactorily.

LEWIS & CLARK - BROADWATER: Rather general rains in Lewis & Clark County and scattered showers in Broadwater County have helped crops temporarily. Rains in many communities were just in time to avoid major damage. Cool and cloudy weather all week and with the exception of moisture, poor growing conditions. Winter wheat will be benefitted by moisture as much of it was short and ready to start heading. Spring grains in many instances will germinate. First crop of alfalfa hay below normal in both counties. Most of sugar beet acreage in Broadwater County in good condition with only small acreage having to be plowed up because of poor germination. In some areas, livestock is in higher condition than normal at this time of year. Shearing in progress and slowed up because of rains. Range improved because of increased moisture. Grasshoppers becoming more of a menace, and while less active this cool weather, will start doing considerable damage when weather becomes warmer. Mormon crickets in all but one area controlled.

MADISON - JEFFERSON: Good rains general over both counties during week. Weather has been unseasonably cccl. All crcps improved over last week. Sufficient moisture to bring crops up. Range land greatly improved. Many stands of grain and peas light, due to lack of moisture for germination earlier. Shortage of irrigation water and low reserve snow supplies in mountains. Outlook brighter due to better range conditions. Lambing practically completed. Grasshoppers serious in most sections. Mormon crickets serious in several localities.

MEAGHER: Showers rather frequent and beneficial. Soil moisture still very short.
Weather continues cold; frost nearly every night. Crops still at a standstill, principally on account of cold. Moisture is still insufficient to change
outlock. Condition of livestock good. Cold weather unfavorable. Shearing just beginning. Grasshopper infestation increasing, with continued hatching. Additional
cricket infestation being reported. Dry weather will cause insect damage to be
serious.

MISSOULA: Cool and cloudy all week. Some precipitation last of week. All dry land crops suffering from drouth. Grain crop probably will not exceed 50% of normal. Hay will be smort for first crop due to dry, cool weather. Second crop should be normal where irrigation water is available and very low where irrigated from mountain streams. Sugar beets have fair stand, but yield will be reduced in some localities due to short irrigation water. Fruit prospects normal at this time. Lower ranges dried up; upper ranges O.K. No surplus range available for cutside stock.

MUSSELSHELL - GOLDEN VALLEY: The past week there has been some rain every day.

Thursday, June 10, 0.57 inch fell in Musselshell

County and the eastern part of Golden Valley. Just a trace fell in the western part

of Golden Valley. June 11, a general rain fell over both counties, with a cloud-

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MUSSELSHELL - GOLDEN VALLEY: burst in the Bull Mountains, which makes growing conditions good. Winter wheat was damaged about 50% before the rains started. Spring wheat, especially the later seeding, has very good possibilities, providing more rain is received in the near future. Livestock in the western part of Golden Valley County has been showing effects of shortage of water. In Musselshell County and the eastern part of Golden Valley they are in good condition, as the grass is considerably better in this area.

PARK: 1.75 inches of rain very beneficial to grain as well as pasture and range. Spring grains and meadows show prospects of good crops.

Livestock doing good on improved grass. Sheep shearing getting under way. Rains expected to check insects some, but control work will probably need to be pushed as much as ever on the return of warm weather.

PHILLIPS: A good shower averaging about 0.50 inches fell over most of the county, materially easing the drouth situation, particularly in the irrigated section. More rain needed in the dryland areas. Growing conditions improved. Crep conditions are materially improved in the valley. With more rain, some of the dryland creps will come along. Rain has stimulated planting of corn and other feed crops. Thinning and blocking of beets under way. Grasshopper situation bad in spots. Livestock situation still critical, although somewhat eased by this week's rain. Stockmen can hold out a little longer than indicated last week.

PRAIRIE: No precipitation, with cocl, cloudy weather. Crop conditions are unfavorable to drouth. Cool weather has retarded the damage of grasshoppers. Livestock in fair condition. Shearing is starting in many sections of the county. No activity in wool.

RICHLAND: Precipitation Thursday night was 0.47 inch in Sidn y area. However, reports from farmers is that this only reached out a short way and the greater part of the county has received practically no precipitation at all, at least not sufficient amount to aid crops. Weather has continued rather cool through out the week, with rather high winds the forepart. Many growers are eagerly waiting moisture, with the idea of planting more feed crops such as millet and corn providing moisture is received. Cutworms are still continuing to do some damage. Sugar beet and other crops in the irrigated valley look very favorable and thinning and blocking are in full swing. Harvesting of alfalfa hay in the irrigated valley will take place in another two weeks. Livestock in thin condition. Quite a number of grasshoppers appearing in a number of communities and a poisoning campaign is planned to get under way in the irrigated valley starting next week.

ROOSEVELT: Continued drouth over most of county, with local showers June 11 in northeast section. Crop conditions at low ebb, with little prospect for any crop even though rains come at once. Range and pasture conditions serious, and owners striving to find enough feed to carry stock a few weeks longer. Movement to market continues. Many farm families leaving for summer trips, which may result in permanent transfers. No hopper control measures started.

ROSEBUD: Local showers last part of week of material benefit in small areas. Cool weather most of week permitted grass and grain in dry areas to remain green. Most of the spring grain too far advanced to be helped materially by moisture. Most of the grain territory still dry, with little chance of getting even seed back. Good rains over south third of county practically assure plenty of grass and some winter feed. Some late corn, millet, and sudan grass was planted in this area during the week. Irrigated crops somewhat backward. Livestock generally doing well. Range feed on the north side holding up well due to cool weather. Grasshoppers being held back by cool weather. Very few requests for bait.

SANDERS: Precipitation for week 0.57 inch. Local showers gave only temporary relief to extreme drouth conditions. Cold weather and lack of moisture retarding all crop growth. Winter wheat headed out with very short growth. Showers during week revived growth, but insufficient moisture for proper maturity. Spring grains badly in need of additional moisture. Meadows on dry land at standstill, with less than 50% first cutting. Prespects for good fruit crop of all varieties. Gardens and truck crops in good condition. Lower ranges completely dried out. Rains during past week insufficient for any material benefit. Cricket control work continues. Small damage to crop so far.

SHERIDAN: Rain reported, varying from 0.15 to one inch, with heaviest reported from the southwest area, previously the driest. Rain of only temporary relief. Damage from soil blowing reported by farmers up to 10% in fallow areas of county. Moisture penetration of from 1 to 4 inches will carry crops over temporarily. Growing conditions previous to rain were at a standstill. Feed crops will be seeded up to July if sufficient rains arrive in June. Shipments of livestock light. Recent rains will tend to encourage holding stock for some time. Effects of grass growth due to rain should be noticeable in a week. Farmers are requesting WPA labor on dams and productive enterprises in the face of crop failure and drouth conditions. Scattered hatchings of grasshoppers reported. Some spreading of old poison bait begun by farmers.

STILLWATER: General showers throughout entire week. Total precipitation 0.84 inch. Severe hail storm north of Park City which washed small part of irrigated section, causing considerable damage to crops, highways, and railroad roadbeds. Greatly improved crop conditions over previous week. Greater part of winter wheat which survived winter should make good crop. Irrigated hay, beets, and beans in good condition. Very little damage from grasshoppers reported as yet. Livestock fair to good.

SUN RIVER PROJECT: General precipitation over the project of about 1.50 inches. Generally too cold for much plant growth. Enough moisture (Continued on Page 4.)



County Summaries of Crop Conditions for the Week Ending June 12, 1937 - Page 4.

SUN RIVER PROJECT: (Cont'd.) to start all seeded fields not previously irrigated.

Considerable acreage of pasture grass, alfalfa and sweet clover being seeded. Pasture conditions will tend to improve for a short time.

SWEETGRASS: Precipitation 1.52 inches. Weather continues cool and cloudy. Live-stock gradually improving on good pastures. Shearing slowed up on account of rainy weather. Crickets doing considerable damage when they attack crops. Grasshopper damage slight to date.

TETON: Precipitation at Choteau up until Noon June 12 has been 1.82 inches, with a total of 2.39 for the month of June as recorded at Choteau. The rains the first part of the week hit only the western half of the county; however, rains on Thursday and Saturday were general over the county. Saturday's rain shows the heaviest rainfall in the best farming area, i.e., dutton and Diamond Valley areas, with 1.80 inches at 10:00 A.M. today and still raining. Pendroy, in the northern part of the county, reports around 2.80 inches for the month, and the eastern half of the county reports around 2.30 inches to date. The heaviest precipitation has been in the grazing areas, where they have said it has wet down to 10 to 12 inches in the sod before today's rain. Days have been extremely cool all week. The precipitation this past week has been a life-saver for both the range and crops. Some of the early grain that had been cut off a time or two will now show some recovery, and the late grain will have sufficient moisture to get it well started.

TOOLE: Weather cool. Some light showers but no moisture to help growing crops.

Very poor growing conditions for past two weeks. Cool weather and light showers have kept crops from drying up but more moisture is needed coon if crop is to be expected. Bulk of county needs extremely heavy rains so start grass again. Livestock situation not acute at present. Operators will not have to move any cattle right away, but unless rains come there will be early shipments out of the county.

VALLEY: Past week characterized by hot, dry weather, with local showers, Thursday the 10th. Showers vary from a trace of moisture to 0.50 inch. Growing conditions still very unfavorable. Past week there has been very little wind, none to do any soil blowing. Crops in very poor condition, particularly in dry land. Some areas have a 100% loss at this time; others not quite as great. Irrigated land has only fair crops. Sugar beets coming fairly well; most cases are blocked and turned at this time. Alfalfa is only fair. Wheat and grain crops very spotted, with considerable more moisture, it would be possible for some seeding of oats, millet, or other roughage to obtain some feed for livestock.

WHEATLAND: Rain fell generally over the county all week in large quantities. Weather remains cool. Crop conditions improved due to rain. General growing conditions throughout the county have improved. With weather remaining cool, grass-hoppers not active.

WIBAUX: Cool weather during week. Ideal growing conditions as far as moisture is concerned. Rather cool for best growing conditions. Grass improving. Precipitation 0.27 inch at Wibaux by Noon Saturday, June 12; still raining. Heavier in northern and southern part of county. Very good prospects for feed crop. Grass-hoppers very numerous. Poisoning commenced with good results. Sheep shearing about one-half completed.

YELLOWSTONE: 2.50 inches of rain Friday and Friday night; still raining at 3:00 P.M. Saturday. Some crop damage and much property damage, particularly in Billings due to floods. Crops and range will benefit greatly from moisture.

PONDERA: Precipitation beginning Sunday, June 6, and up to Saturdo7, the 12th, at five o'clock, was about 2.70 inches; general throughout the county.

Approximately 1,000 acres of wheat reseeded, following showers of a week ago. Others debated this action and delayed seeding. All but approximately 3% will make splendid crops. Here and there wheat which was subject to severe blowing, which started after seeding operations were completed, may not recover. Summer fallow in the most part was completed May 15th, and this rain will contribute a major factor toward moisture reserves in 1938. Range and pastures will undoubtedly recover to the full extent and make the best grass available for nine years. Sod is soaked to a depth of 14 inches with rains continuing in a steady downpour. Sugar beets that farmers attempted to irrigate up did not meet with great success due to soil washing. Abandonment of sugar beet acreage will be materially reduced. This week's precipitation will preclude the possibility of forced liquidation of all kinds of livestock and will assure an abundance of feed reserves not only in hay, but also in barley and oats, as some mustard, barley, and oats was reseeded on ground as a catch crop.

SUPPLEMENT:

The following information was received through wire and letter after the foregoing Crop and Weather Reports were mailed in:

DANIELS: Approximate Daniels County average precipitation 0.35 inch.

FALLON - CARTER: 2.50 inches average rainfall over counties.

PHILLIPS: About 4 inches rain since Thursday (written June 12).

RICHLAND: One inch rain eastern part of county; western part still dry.



County Summaries of Crcp Conditions for the Week Ending June 12, 1937 - Page 5. SUPPLEMENT - (Cont'd.)

ROOSEVELT: A rainfall ranging from little up to 0.92 inch fell June 11th at Bainville and over the northern part of the county. Livestock men feel that this rain will improve ranges and will avoid necessity of immediate shipping.

SHERIDAN: Rainfall varied from one-tenth to an inch. Benefit only temporary. Too light to be of much help.

TOOLE: 1.50 inches rain and still falling; changes picture.

VALLEY: Precipitation dryland sections varies from 0.10 inch to an inch. Approximate average of 2 inches for Milk River section. Approximately 5 inches at Hinsdale. All areas received some moisture.

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Helena, Montana, June 15, 1937.



UNITED STATES DEPARTMENT OF AGRICULTURE Weather Bureau -- Bureau of Agricultural Economics

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA For the Week Ending Tuesday, June 22, 1937.

Issued jointly by the Division of Grop and Livestock Estimates and the Weather Bureau.
Offices: Fourth Floor, Federal Office Building, Helena, Montana.

Good growing conditions during the past week were reported from nearly every section of the State. Temperatures were higher, sunshine increased, and additional good showers fell over wide areas to continue the improvement started by last week's heavy rains. June rains have substantially increased the moisture content of soils in central and southern Montana. Fergus County reports more moisture present than for the past three growing seasons; Gallatin County, greater subsoil moisture supply than any time during the past five years; and Carbon County, excellent conditions, as a result of the heaviest June rainfall ever recorded.

Crops and ranges show general improvement with the exception of the extreme northeast, where recent rains have been too light to break the drouth and conditions remain bad and continue to decline. While the rains have started recovery of some badly soil-blown and drouth-damaged grain, and have germinated considerable grain planted earlier in dry soils, their arrival has been mostly too late to save the bulk of the dry-land grain crop in the northeast, insofar as any harvest of grain is concerned. Loss of the dry-land grain crop in much of that area ranges from 75 to 100 per cent. More rain will be needed to bring spring grain crops to maturity as well as continue a good growth of grass for fall and winter feed. Much seeding of emergency feed crops was done during the week. With oats, barley, corn, millet, and flax, were seeded thousands of acres of wheat, as the latter still has a possibility of making a grain crop before frost.

Cultivation of row crops is under way; some crusting resulted from recent heavy rains. First cutting of alfalfa is about to become general; some cutting to give the second crop a better chance, others to better combat the grasshoppers, and still others to obtain some quick feed. The hay crop is reported shorter and later than usual.

Irrigated crops continued good progress. Little, if any, irrigation has been necessary during the past week in several districts because of recent good rains. Winter wheat is in fair condition and is heading rapidly. Winter rye is ready for harvesting in Sweetgrass County. In general, the winter grain crop is decidedly short. The outlook for spring wheat has brightened, although much of the stand is uneven and weedy. Beans, gardens, and truck crops have improved, but growth has been slow. The condition of beans is good to excellent. Peas show varied progress.

Ranges and pastures have made good growth since the rains; many dormant sime last summer have now begun to green up nicely. While prospects for winter feed are still umertain for much of the area east of the Divide, present growing conditions largely assure sufficient grass until marketing time, except in the extreme northeast. Water holes have been filled, and streams are up.

Livestock gained except in the extreme northeast. The general condition of livestock is mostly good. Shearing made more rapid progress during the past week, and is in full swing in most districts. Weather conditions were more favorable for cricket and grasshopper poisoning work. Grasshoppers so far have been less damaging than anticipated.

WEEKLY TEMPERATURE AND PRECIPITATION DATA

	Temperature		Total Precipitation		Sunshine
Station	Highest	Lowest	This Week.	Since April 1.	Percent of Possible
Billings	98	49	0.19	6.19	*
Bozeman		38	0.27	7.13	*
Cut Bank	90	47	0.27	5.59	*
Fort Peck	96	55	0.04	2.96	* .
Glendive	96	52	0.35	3.78	*
Great Falls	95	48	0.54	3.56 #	*
Havre	96	52	0.88	4.46	70
HELENA	92	41	0.64	3.13	54
Kalispell	86	71,71	0.79	4.21	58
Lewistown	94	43	0.52	4.47	*
Malta	94	51	0.46	5.09	*
Miles City	96	54	0.36	3.60	86
Missoula	86	42	0.38	2.81	46
Poplar	100	54	0.10	1.19	*

[#] Including correction for last week.

*No data.

Series - 1937 - No. 11. Helena, Montana.

W. E. Maughan, Weather Bureau.

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The following county summaries of crop conditions for the week ending June 19,1937, are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service:

BEAVERHEAD: General rain and showers over county. Crops benefitted by moisture, with all crops good. Shearing being held up by rain and cold weather; no activity in wool; some lambs contracted. Grass good. Grasshopper activity has slowed up due to weather conditions.

BIG HORN: More precipitation, and splendid growing conditions have resulted. Winter wheat is making some comeback, but it probably will not make more than one-half crop. Some fields of spring wheat doing well and will improve with continued moisture. Sugar beets are making progress although somewhat retarded. Haying begun, with prospects of a fair first cutting of alfalfa. Range conditions and cattle improving daily. Many cattle being shipped in from outside. Shearing under way, with heavy fleeces reported. Crickets still menacing. Grasshoppers not very serious except in a few local spots.

CARBON: Showers during the week. .78 inch precipitation in Bridger area, with heaver rains in Belfry territory. Some beans are replanted in Joliet territory, where they suffered most damage by the hail last week. Alfalfa harvesting started in a few places. Wheat heading out. Cultivating row crops. Livestock condition good; grass in fine shape. Labor conditions fair. The Mormon cricket threat has increased, with the coming of better weather, and outbreaks are being reported here and there. The cricket project increased to employ 130 men.

CASCADE: Light local showers have added to favorable moisture of last week and relieved the tense drouth condition which existed prior to last week's rain. It is not possible at this time to estimate the amount of recovery of wheat on dryland due to precipitation, but undoubtedly some fair rields will still be secured. Crops on irrigated lands are looking good. Poisoning of crickets was resumed. The grasshopper campaign will get under way next week. Thinning and blocking sugar beets, and good stands reported. Livestock in good condition, with sufficient pasture to carry them through a normal grazing period. Shearing well under way, with some delay caused by rain.

CHOUTEAU: Scattered showers. Moisture averaging about 2 inches over entire county. Cloudy and cool all week. Spring and winter wheat looking considerably better under normal conditions. Fair yield anticipated in many sections. Some reseeding is being done, with improved conditions. Farmers are seeding sizable acreages of feed crops in an attempt to build up feed reserves and prevent soil erosion. Very little movement of livestock. Moisture conditions for range very favorable. WPA crew back at work on Mormon cricket control. Poisoning of grasshoppers getting under way first of next week.

CUSTER - POWDER RIVER: Good soaking rain last week and followed by cooler weather and occasional showers. Rather severe hail damage reported on upper end of irrigated area Thursday, but only two or three farms affected. Seeding of late forage crops continues. All grain crops showing promise of forage, but grain production still uncertain. Winter rye stooling out following rains. Wild hay meadows making good growth at present and some bluejoint hay is in prospect. First cutting of irrigated alfalfa, with yields only fair. Sugar beet thinning nearly completed. Range conditions improved considerably; water holes now well filled. Some late varieties of grass still dormant, but can be expected to come to life soon. A very noticeable volume of weeds on the range this year. Sheep and lambs gaining past ten days. Shearing just beginning. Cattle gaining flesh. Range conditions still not good enough to warrant much restocking. Hoppers present in many areas in Custer County with bait now being distributed. No damage reported so far and not much interest in poisoning at present. Crickets continue on the move in western Powder River County.

DANIELS: No precipitation during entire week. Rains that fell during week of June 6-12 affected only southern half of county, but was not enough to be of any material benefit. No damaging winds during forepart of week, but soil blowing resumed the latter part of week. No harvest of grains for market expected. Parts of fields that have not blown cut are heading and beginning to burn. Some hay and feed crops could be expected if rain falls within two weeks. Larger livestock operators are moving stock to North Dakota pastures. Enough grass in a few coulees to maintain a few scattered head for a few weeks yet. Water shortage not as acute as grass shortage. Appeals being made to get government projects established for employment of drouth-stricken farmers in this area. Large numbers of grasshoppers are prevalent in places.

DAWSON: Rain at the close of last week was general throughout county, although greater in southern parts. This was followed during week by a shower of beneficial proportions which covered county quite generally. There are approximately 15 inches of moisture in the soil over most of the county. Of the crops put in during the normal seeding season, the moisture of the past week doubtless will send at least 25% on to at least feed maturity, with about that proportion of wheat suitable for harvest. A relatively large acreage of emergency forage crops, principally millets and similar crops and corn, have been seeded during the past week and, with an average break should make considerable feed. Wheat and larger grasses showing considerable growth in favored spots and are providing considerable amount of grazing. Considering the total forage acres of this grass, the grazing situation is not yet over the hump, but gaining. Grasshoppers seem to be a rather unknown factor just now. There are spots with scarcely any; other locations with 25 to 30 per square foot, and then areas where they are thick.

FALLON - CARTER: Showers this past week. Growing conditions good. With sufficient moisture crops have gained rapidly. Although crops are very weedy, grain should start ahead of the weeds because of sufficient moisture. Grass conditions excellent. Livestock showing rapid gains.

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County Summaries of Crop Conditions for Week Ending June 19, 1 37 - Page 2.

FERGUS: Precipitation .63 inch. Good growing conditions. Nost days partly cloudy with thunder showers which netted over .50 inch additional moisture at Lewistown and most other sections of the county. Crops have made very rapid improvement during week, particularly the later seedings of small grains, as weeds are not bothering them. Additional wheat being seeded to be used for feed if it does not have time to mature grain. Corn, oats, and millet going in for emergency feeds. Winter wheat which has survived heading out, with some favored localities having some fair fields. Some alfalfa being cut to give second crop benefit of moisture now available. Soil moisture from recent rains reported to be more than has been present for past three growing seasons. Grass is making rapid recovery, with hills beginning to green up, many of them for the first time this spring. Feed for winter is still in doubt, but there will be plenty of grass now to bring stock through to satisfactory marketing condition. Shearing well under way. Livestock making satisfactory gains in flesh. Grasshoppers are beginning to do some crop damage and poisoning operations are well under way.

FLATHEAD: Weather has continued cool and showers have been general throughout county. Growing conditions good for all small grains, and fields that have been damaged through soil blowing are coming back in good shape. Warmer weather would be beneficial. Weeds making good growth and will reduce yield of winter wheat and some spring crops. Haying will start as soon as weather clears up. Livestock conditions good. Pasture and range producing a lot of feed.

GALLATIN: Cool, cloudy and considerable amount of wind. Some precipitation. Wind blowing this morning (Sat.) Rains past two weeks have given a subsurface supply of moisture greather than at any time during the past five years. Crops making considerable growth in spite of cool weather. Irrigation continues with exception of High Line ditch, where run-off moisture caused bad break in the ditch. A few farmers short of feed have started cutting alfalfa. Winter wheat heading out. Range shearing nearly completed.

GARFIELD - PETROLEUM: Precipitation 1.47 inches at Jordan; 2.25 Continal Butte
Pass; 2.50 at Flatwillow. Soil moisture to depth of 10 and
12 inches on the average on crop land and 5 or 6 on the average on sod. Run-off
from this precipitation was moderate to heavy. Comparatively warm weather following
precipitation has made growing conditions good. 75% early seeded crops destroyed
previous to moisture by wind and drouth. Remaining 25% will make some feed if conditions are favorable remainder of summer. Very little grain can be expected under
any conditions. Late seedings not seriously damaged by wind and not previously
sprouted are developing good stands. Moisture is available to warrant seeding of
feed crops such as millet, corn, etc. Any of these crops seeded shortly prior to
this week are making desirable headway. Water facilities improved by recent rain.
Pastures becoming somewhat greener. Conditions of livestock fair to good.

GLACIER: Precipitation 1.50 inches since last report. Growing conditions fair. Weather still quite cool. Some severe soil blowing in southeast part of county. Crop conditions fair. Some reseeding being done on losses caused by cutworms and wind. Pastures excellent. Soil moisture conditions excellent. Livestock in good condition, with demand for feeding and breeding stock. Shearing begun and will soon be in full swing. Water reservoirs and water holes have good supply of water. Some difficulty reported in getting satisfactory help.

HILL: Precipitation .40 inch. Meisture the past 10 days has brightened the outlook. Crops were improving until the last two days, when excessive winds caused considerable soil blowing again. Grasshoppers showing up in several sections. Ranges are improving slowly. Livestock in fair to good condition.

JUDITH BASIN: Precipitation 1.24 inches from June 1 to 17 at Moccasin. Somewhat more at Stanford. Western end of county and foothill and mountain sections received heavier precipitation. Wheat exceptionally uneven and very weedy. With most favorable moisture conditions, poor crop will be harvested. Most sections of county need considerably more rain. Grasshopper infestation appears serious. Range is improving. Most of the livestock in foothill and mountain area will be maintained and marketed in good shape.

LAKE: Rainy and cloudy during the entire week, with considerable moisture falling in all parts of the county. Haying has started in some parts of county, but is being delayed because of wet weather. Prospects for good spring wheat crops are very bright. Labor balanced. Cricket dusting continues with some interruption from unfavorable weather.

LEWIS & CLARK - BROADWATER: Light showers generally in both counties. Too cool for good crop growth. Improvements shown in all crops sinc recent rains, but more moisture needed for continued growth. Sugar beet yield prospects in Broadwater County below normal. Some alfalfa will be cut a meek early to allow poisoning of grasshoppers to save second crop. Recent rains have helped livestock, pasture, and feed situation. Grasshopper bait has been mixed and distributed in Lewis & Clark County this week, and the work will get under way in Broadwater County on Monday.

MADISON - JEFFERSON: General showers throughout week improved moisture conditions greatly, and have been favorable for grass. Grain crops generally below normal. Many fields spotted as to stand and growth. Some peas in blossom, while others are just emerging from the ground. Range grass reported to be in best condition it has been for about 10 years, but more moisture required if gras is to cure properly. Condition of sheep and cattle improved somewhat because of improved grass conditions; sheep shearing getting well under way in spite of cool, rainy weather. Old-timers report that this spring was the driest and feed condition the poorest since the summer of 1889.

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County Summaries of Crop Conditions for Week Ending June 19, 1937 - Page 3.

MEAGHER: Showers; cool. Soil moisture much improved. Cool weather keeps grass back, but prospects are now fair for grazing. Crops slow on account of cool weather, but moisture conditions are now favorable. Hay doing well. Livestock condition very good. Labor supply above demand temporarily. Shearing started, but going very slowly on account of showers. Hoppers and crickets have not grown during two weeks cold weather.

MISSOULA: Cloudy and rainy all week. Scattered showers. Possibly one-half inch of rain during week. Surface soil moisture O.K.; no sub-soil moisture. Irrigation in full progress. Water in mountain streams increased since rains. Small grains growing slowly. Hay is late but making fair growth; potatoes and sugar beets making fair growth. Apple crop reported at about three-fourths normal. Recent rains have been of much benefit to all range and pastures.

PARK: Continued wet cool weather during the past week. Moisture conditions ample but crops and grass not growing very rapidly due to cool weather. Livestock in fair to good condition. No appreciable amount of loss of insects by rains.

PHILLIPS: North end of county received about 2 inches of rain and outhern part from 3 to 4 inches, which greatly relieved the drouth altuation. Many of the dry land farmers are now seeding oats and corn on land on which other crops had been blown off. Grain and sugar beets are coming up on the 12 igated sections which had remained dormant because of lack of moisture. Beet thinning has been delayed because of the rain. Alfalfa is ready to cut with some started. There is little demand for grasshopper poison because of the cooler weather. Indications of a good crop of sugar beet web worms. Grass is starting fast on the ranges because of the rain. Stockmen are feeling much encouraged. Most of the stock reservoirs are filled with water which will last during all of the next season.

PONDERA: Precipitation over the county general to the extent of .25 inch, with the heavier portion falling on the west wnd and as high as 1.25 inches in Dupuyer area. East end of county had a very negligible shower. It is estimated that 3,000 acres of wheat have been reseeded due to a high storm period of two days a month ago. Oat and barley crops being seeded for emergency feed, which will total approximately 2,000 acres of barley and 5,000 acres of cats. Grass plantings are going on after the rain, using seed purchased prior to May 1st, but withheld on account of drouth and dust. Range pastures indicate remarkable response to moisture Hills greening up and all medium length grasses are producing good forage. Short grass areas indicate approximately 12 inches growth and will produce a corresponding ly lower tonnage. Little or no livestock has moved to market since the rains and it is expected that liquidation will stop except for mature and marketable grades.

PRAIRIE: The three inches of precipitation received since last report have given the farmers and livestock operators new hope. A narrow streak of hail went across Fallon Flat Thursday evening, damaging crops considerably and in some places obliterated them. Grop conditions greatly improved for the small acreage which is left. Grasshoppers still present in all parts of county in considerable numbers. Livestock operators are now assured of sufficient pasture so they may keep their livestock this summer and prospects of winter feed lock better than they have for the past few years. Ranges very weedy. Little activity in the wool market. Many reservoirs are still dry as the soil took so much water and few of the flood irrigation projects functioned.

RICHLAND: .46 inch precipitation fell in Sidney area Thursday mint. Crops very spotted in the dryland area and it is doubtful if much can be harvested unless moisture conditions improve tremendously. Approximate total of one inch of moisture fell in eastern part of the county during last week, but the western part continues dry over a greater portion, with just light scattered showers that merely settled the dust. Considerably more moisture will be needed even to produce feed crops. Planting emergency forage crops in the areas that have received moisture. The cutting of alfalfa hay in the irrigated valley will get under way this week. Grass for livestock is short and most stock in thin condition. In general most farmers over the county will try to hold their cattle somewhat longer. Poisoning of grasshoppers has started in irrigated valley, with a few farmers poisoning in the dryland area.

ROOSEVELT: Light showers over much of the county have temporarily improved growing conditions. Ample moisture over small areas. Ranges improved. Unsprouted early seeded wheat now showing, and many farmers feel this gives best promise of a crop. Crop outlook in general very poor. Much corn, millet, and cane seeded in eastern portion of the county. Many hoppers hatching, but little poisoning started. Market movement of cattle continues.

ROSEBUD: 1.45 inches precipitation in central part of county. Both north and scutted end received greater rainfall during week. Hail reported from south end Thursday night; little damage done. Temperature about normal during middle of week. Irrigated crops, especially sugar beets, growing well; thinning practically completed. Some first cutting alfalfa being cut. Alfalfa acreage limited. Wild hay should make fair crop. Prospects excellent for corn and late planted crops. Too early to tell to what extent early grain crops will be benefitted by recent rains. Spring wheat that has not blown out commencing to head. Range and winter feed outlook much improved. Stock generally in excellent shape. Lambs on north side doing exceptionally well on weed feed. Rains during week filled most water holes, thus averting a water shortage which was becoming serious. Shearing general throughout county. Crickets more active during week, and reported spreading into new territor; Warm weather hatched new crop of hoppers, which may have to be poisoned.

SANDERS: Precipitation .27 inch. Cool and cloudy with daily showers. Precipitation sufficient only for temporary relief. Present growing conditions very good. All grain crops making good growth from daily showers. Winter wheat well (Continued on Page 4.)

County Summaries of Crop Conditions for Week Ending June 19, 1937 - Page 4.

SANDERS: - (Cont'd.) headed out, with general moisture sufficient for maturity.

First cutting of alfalfa very short on dry lands and backward under irrigation. Gardens and truck crops doing nicely. Livestock in good
condition. Recent rains insufficient for much help to very dry range conditions
in lower altitudes.

SHERIDAN: Continued dry; a few days of hard wind. Crops gone in three-fourths of county; the southeastern quarter of county, where heavy rains fell in July 1936, have some fields still remaining green, but these are failing under several hot days. This is the third drouth in four years over three-fourths of county, the southeastern quarter having received sufficient rain in 1936 to produce feed and some crop. Shipments of livestock to market have increased the past week. Sheep owners are looking for pasture in North Dakota. Some livestock will be shipped to pasture; then to market. The majority are holding with the hope of rain coming. Farmers are anxious to secure work in the face of drouth conditions. Increased grasshopper hatchings, with no bait being spread.

STILLWATER: Generally cool throughout week. A slow, steady rain on the night of June 12. Severe hail storm north of Park City cause damage on small area of productive irrigated ground. Damage was caused by hail and debris washing in. Estimated that 30 to 40 head cattle lost in flood. The fine rains since the first of June have materially brightened crop prospects. In areas free of crickets, there should be a good crop. Every effort will be made to control crickets. Hoppers showing up in damaging numbers in some areas. Considerable poisoning being done. There is possibility of irrigation water shortage in part of Park City area, due to damage done by hail and water on Valley Creek syphon. In general, crop prospects much better than June 1st. With abundance of grass, all stock in fair to good condition and picking up. Shearing getting in full swing.

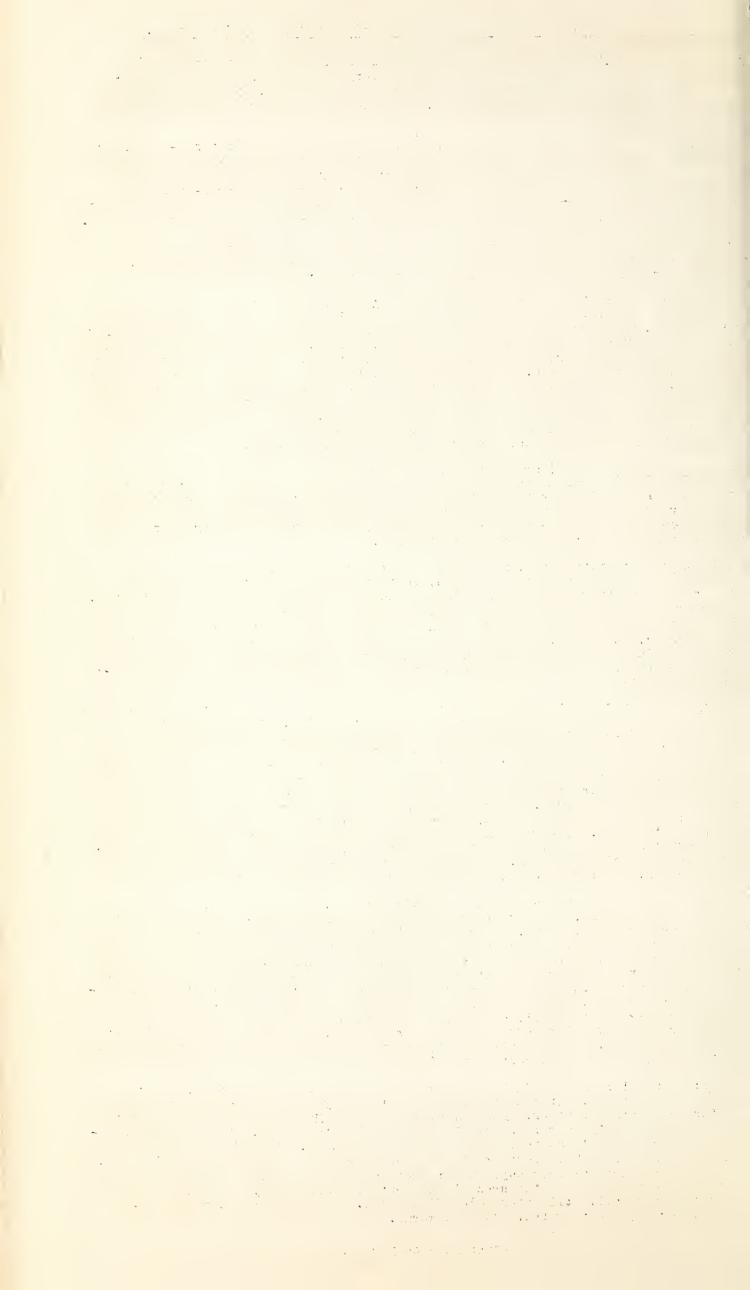
SUN RIVER PROJECT: Total precipitation at Fairfield has amounted to 2.96 inches for month of June. This has been sufficient to carry crops—without any irrigation for the past week. Good stands of alfalfa, sweet clover, and pasture grass has been noted after recent rains. Most crops in need of warm growing weather. Sugar beet thinning well under way after some delay caused by rains. Grass has increased after recent rains.

SWEETGRASS: Precipitation 1.05 inches. General growing conditions just fair, due to five days of cool cloudy weather and two days of good growing weather. Grain in growing slowly; steeling well. Alfalfa now making fair growth. Winter rye now ready for harvest. 60% of crep on account of dry fall and winter. Fall wheat making slow but steady growth. Spring grains spotted where sown before rains started, but slowly coming. Grass heading, with prospects of considerable natural seeding. Livestock growing, gaining and developing well. Very little disease reported. Poultry exceedingly short on account of shortage of feed produced last year.

TETON: The balance of the general rain last week, not included in the last report, was .58 inch on Saturday night and Sunday morning. Another shower on Wednesday, with .16 inch precipitation. Total for Choteau for the month to date is 3.27 inches. Crops remain very spotted over most of the county, due to uneven germination and wind damage. Some of the crops that were blowing out are showing some recovery and the prospects are with continued favorable weather we will have approximately 60% normal yield for county as a whole. The early seeded crops seemed to suffer the worst. There has been considerable reseeding done the past week of feed crops and some wheat, and a large increase in mustard and flax seedings since the rain. The range has made remarkable recovery considering the fact that there was practically no growth up until the recent rains. Plains and hill—sides are now decidedly green. Shearing has been resumed since delay caused by rainy weather. Approximately 50% of shearing done for the county.

TOOLE: Good soaking rain a week ago, varying from 2.34 inches to 3.50 inches within county. Showers received Wednesday throughout practically all the county, varying from .25 to .50 inch. Considerable seeding of mustard and small grain during past week. Fields that were spotted are greening up in nice shape and with normal rains from now on there will be sufficient feed and the possibility of grain crops is very good at present time. In two-thirds of county, present rains connected subsoil moisture with surface moisture. Also replenished subsoil to large degree. Recent rains are of great help to range. The rain was absorbed readily by the soil, and there was no run-off until it had rained 12 hours. Practically all reservoirs and water holes are full. Grass is coming back in excellent shape, and the whole county has a nice green tinge. Moisture in sod is down about 18 inches in most localities.

VALLEY: General rain over Valley County last Saturday, varying from .16 inch to 5.00 inches. Growing conditions best of any time this spring caused by moisture and warmer weather. More moisture needed. Majority of crops appear to not have the ability to come back. Some few fields look fair. Considerable seeding of millet and oats as feed crop the past three days. Alfalfa ready to be cut. Blue-joint meadows making best growth the past three days of any time, which looks like some prospects of some hay. Sugar beets are doing fair. Stockmen feel much better since the rain, as the grass looks better. Possibility of enough grass to do until early fall. All water holes filled now. No labor, but work needed. Grasshoppers are getting bad. Some cutworms.



County Summaries of Crop Conditions for Week Ending June 19, 1937 - Page 5.

WHEATLAND: Small amount of moisture during week. Cool and c oudy all week.

Moisture received during the past 10 days has greatly improved crop
growing conditions in county and has revived some of the crops. With additional
moisture, crops in the south part may make 60% crop. Crops in north part were
badly damaged by wind and soil blowing though with additional moisture they may
turn out to be fair crops. There has been some seeding of feed crops during the
past week. Ranges have been greatly improved due to rain and grass has started
in the central part of county, where there had been no grass previous to the rain.
However, more moisture is needed in the central part of the county. Shearing
has started during the past week.

WIBAUX: Precipitation June 12 and 13, 1.97 inches; June 17, 0.57 inch. Growing conditions excellent. Emergency feed crops being planted. Wheat crops will be very short. Good prospect for feed crops if grasshoppers can be controlled. cutworms still working in some fields. Grasshoppers are very numerous and poisoning campaign has started. Ranges improving.

YELLOWSTONE: Precipitation for week ending June 12, 3.63 inches; for week ending June 19, .43 inch. General growing conditions excellent throughout county. Severe hail and flood over approximately 4,000 acres of irrigated land west of Billings. Much of the area, however, is coming back due to cloudy, cool weather and less loss than expected. Winter wheat excellent throughout the south side of the river and fair throughout the rest of the county. Irrigated crops all good and beets exceptional. Haying started throughout county. Practically all ditches west of Billings washed out due to the flood, and some loss of crops may be expected if ditches are not repaired immediately. Most severe ditch damage to the B. L. & I. ditch, which irrigated approximately 25,000 acres of land, much of which is in truck gardens and beet and bean acreage. Mormon crickets completely covering crop acreage south of the Yellowstone from Huntley to the west county line. Danger of losing approximately 25,000 acres of winter wheat unless more assistance available in control. Approximately 160 more men put to work, but number is completely inadequate to cope with the situation. Livestock in fair shape. All labor being employed in rehabilitation of ditches, farms, fairgrounds, and the town.

Helena, Montana, June 22, 1937.



The following county summaries of crop donditions for the week ending June 26,1937 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

Issued jointly by the Division of Grop and Livestock Estimates and the Weather Bureau.
Offices: Fourth Floor, Federal Office Building, Kelena, Montana.

While the return of cool weather during the first part of the week tended to retard most crop development, the change to hot, sunny weather during the latter part was beneficial and accelerated growth generally where moisture conditions remained favorable. Temperatures for the week as a whole averaged above normal, ranging from maxima in excess of 100 degrees on the 29th to minima in the 30's, and sufficiently low to cause local frost damage in some central districts on the 24th and 25th.

Precipitation for the week was negligible. A few light scattered showers fell at the beginning of the period in the north and west, but were of little or no benefit to crops and ranges. Except for the northeastern drouth area, the supply of maisture in surface soils remained largely sufficient for plant needs. Unusually heavy requirements, however, because of the excessive heat and winds at the close of the week indicated an early and perhaps general need for additional rains to keep crops and ranges growing satisfactorily. The area in which soil moisture has peer weefully lacking all spring and crop and range conditions remain particularly bad includes the following counties: Daniels, Sheridan, Roosevelt, Valley, and parts of MyCone, Dawson, and Richland.

Weather conditions were especially favorable for haying, shearing, and cultivation of row crops. Irrigation increased, with water mostly ample for present needs except in parts of Beaverhead County. Some attention was given to loosening the crust on summerfallowed fields that had formed after the heavy rains and subjected the land to soil erosion. High winds caused some soil-blowing from Toole County eastward to the Dakota line.

Crops and ranges improved for the third successive week. While most grain crops will be light, and many continue backward for the season, the more favorable growing conditions of late have boosted yield prospects generally. Some good wheat and other grain crops are to be found in several of the western and more southern districts. Spring wheat which survives as well as that recently sprouted is growing rapidly. Early spring wheat and much of the winter wheat is on short straw. Winter wheat continues fair, and some is in need of rain for filling. Winter rye is being harvested in the Yellowstone Valley. There is still some thinning of beets under way; most stands are good to excellent, although heavy infestations of web-worms are reported from Carbon County. Beans are excellent in Yellowstone County. Mustard is spotted in Teton County; reseeded mustard there has made good growth since the heavy rains. Peas in Flathead County have been injured by a root disease, which is being aggravated by hot weather; in Gallatin County, peas are in excellent condition and mostly in blossom. Fruits continue good progress. Bitterroot strawberries are on the market. Cherries are coloring.

Ranges and pastures have made splendid recovery since the rains, although the condition generally north of the Yellowstone Valley and from the Divide to the Dakotas remains below normal. In the extreme northeast, range conditions continue bad because of the drouth, and further selling and movement of livestock has been necessary. Many of the eastern ranges are reported weedy. An abundance of feed has been reported from Flathead and several of the more southern counties. Sufficient water for livestock purposes has been reported from all sections. Livestock are in good to excellent condition in the west and extreme south and fair in the northeast. Livestock continue to gain with range improvement.

have not been particularly destructive. Crickets continue damaging in several scattered districts, with some reported under control as the result of the intense poisoning campaign.

WEEKLY TEMPERATURE AND PRECIPITATION DATA

	Temperature		Total Precipitation		Sunshine	
Station	Highest	Lowest	This Week.	Since April 1.	Percent of Possible.	
Billings	101	48	T	6.19	*	
Bozeman	89	36	$ar{ ext{T}}$	7.13	*	
Cut Bank		39	0.00	5.59	*	
Fort Peck		50	0.02	2.98	*	
Glendive		52	${f T}$	3.78	*	
Great Falls		42	0.12	3.68	*	
Havre		48	0.09	4.55	76	
HELENA		43	${\mathbb T}$	3.13	8,1	
Kalispell		40	${ m T}$	4.21	84	
Lewistown		36	0	4.47	*	
Malta		44	0.11	5.20	*	
Miles City	98	56	Ţ	3.60	82	
Missoula		40	0.16	2.97	82	
Poplar		47	0.14	1.33	*	

Series, 1937, No.12. Helena, Montana, June 30, 1937.

W. E. Maughan, Weather Bureau.

Jay G. Diamond, Divn. of Crop & Livestock Estimates.

March 1

The following county summaries of crop conditions for the week ending June 26,1937 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: Scattered showers. Sections not receiving much moisture will have short hay crops, and include the Horse Prairie, Medicine Lodge, and Red Rock Valleys; other sections good. Shearing well under way, with still no activity in wool. Livestock in good shape, with grass good.

BLAINE: General showers. Crops making rapid growth. High winds and some soil drifting continues. Range shows big improvement.

CARBON: Few hot days; no precipitation. Hot winds part of the week. Wheat looking good. Haying, with fair yields. Plenty of irrigation water at present time. First thinning of beets practically completed. General webworm infestation in beets. Grasshoppers increasing in some sections. Mormon cricket situation remains serious, with approximately 170 men at work. Livestock conditions
fair. Grass situation good.

CASCADE: Excellent growing conditions for all crops and range grass. Summerfallowing is practically completed; many farmers converting their farms into strips, taking advantage of moisture to grow cover on the intervening strips. Thousands of acres of emergency feed crops are being planted, including mustard as a casch crop. Sugar beets show excellent stands and good crop prospects. First cutting of hay. Sufficient water in reservoirs for all needs this season. Livestock in good condition. Poisoning of grasshoppers just getting under way because of late arrival of bait. Cricket campaign continues under full force, with excellent results being reported.

CHOUTEAU: Scattered showers throughout most of the county have resulted in appreciable amounts of precipitation. In general, crops are looking much improved since the drouth has been broken, and fair yields are anticipated for most parts of the county. Many farmers are seeding quite sizeable acreages of feed crops, and some reseeding of spring grain is being done. Cultivation of summer fallow is in progress to break the crust formed by recent rains, thus minimizing soil erosion. Range conditions are greatly improved and there is no movement of livestock. Mormon cricket work is progressing in good shape. Some grasshopper damage is reported in some areas, and a control campaign should get under way the first of the week.

CUSTER - POWDER RIVER: Growing conditions remain good. Dry land grain crops making good growth but are short. Late feed crop planting about ended, with some of the early seedings up. Irrigated crops, including beets, very good. On first cutting, alfalfa yields fair to good. Whater supply in Tongue River ample. Grass making good growth in south country. Conditions much better on north side since rain, but range is weedy. Shearing about over, with fleece weights heavy to light depending on whether shearing was before or after rain. Labor supply sufficient. Grasshopper damage not yet noticeable. Some bait being spread.

DANIELS: No precipitation of any value. Growing conditions very poor. Severe winds and dust storms prevailed during week. Farmers have practically abandoned all hope of harvesting any grains. No chance for planting feed crops because of drouth. Fields that were cultivated this spring are still bare. Even weeds have been unable to grow because of soil drifting. Livestock are beginning to lose weight and stockmen continuing movement to outside pastures. No forage left except along creek bottoms. The water situation is not serious. Practically all farmers want work with sufficient income to care for their families. Approximately 30 farm families have moved out of the county since spring work began. Many more are investigating other locations and are planning on moving.

DAWSON: Weather and growing conditions fair throughout the week. Prospects for obtaining feed for livestock continue to be fairly favorable, although, of course, much depends on whether or not more rain is received. Some few scattered sections may revive a small amount of small grain crops. Grasses continue to grow, providing some grazing. Continued reports of grasshoppers hatching and beginning to damage gardens and in some cases fields.

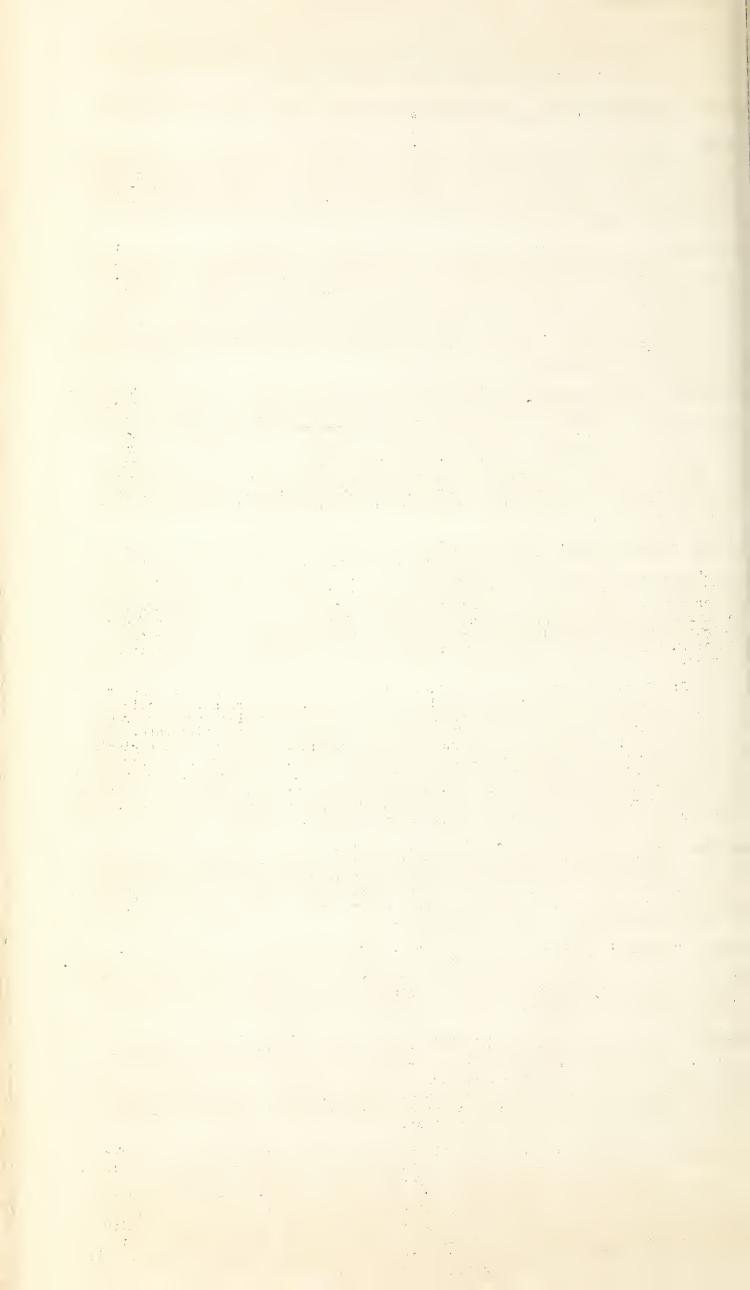
FALLON - CARTER: Moisture conditions fair. Growing conditions fair to good.

Crops in some portions of our counties showing grasshopper damage.

Weeds and grasshoppers will cut down yield. Grasshopper poison ordered into the county. Livestock showing good gains. Although range is showing lots of weeds, there is good grass growth.

FERGUS: Good growing conditions. Alfalfa being cut; crop very short. Winter wheat heading, with prospects of about half a crop; acreage, however, is small. Spring wheat making very rapid growth, but in east part of county too far gone before the rains to make very much recovery. Plenty of water and grass at the present time to carry stock in good shape. However, grasshoppers will no doubt cause considerable damage. Crickets practically cleaned up, with very good results reported. Grasshopper poison moving fast.

FLATHEAD: Local showers, with a little hail doing considerable damage to a few fields of peas and gardens. Outside cf this localized damage to crops, growing conditions have been excellent for all crops. Moisture adequate for the present, but more will be necessary to carry grain through to harvest. Reports would indicate that the first crop of alfalfa may be a little short, but prospects for a second crop are better than for years. The pea crop may be damaged quite extensively by a disease which is killing the root systems, especially if hot weather should strike the valley during the next few weeks. This would cause all (Coptinued on Page 2.)



County Summaries of Crop Conditions for the week ending June 26, 1937.

FLATHEAD: (Cont'd.) peas to wilt. Condition of livestock very good. Pastures and ranges are furnishing an abundance of feed.

GALLATIN: Some precipitation. Haying under way in nearly all sections of the county. Crops making considerable growth and show benefit of recent avy rains, with a large percentage of the winter wheat headed out. Peas in bloom and show prospects for an excellent erop. Pastures and range in better condition than they have been at this time of the year for many years past. Some frost damage to gardens in northern portion of county.

GARFIELD: Two days warmer; otherwise cool, cloudy, with few scattered showers in some parts of the county. Growing conditions fair. Crop conditions unchanged from previous week; additional moisture will be needed soon. Only feed can be expected on seeded fields. Livestock condition good; pastures generally sufficient to carry present numbers of stock. Range generally shows serious high percentage of weeds. Considerable loss of sheep due to coyotes reported.

HILL: .57 inch precipitation for the past week. Two days of wind crused additional soil drifting. Crops recovering slowly from wind and drouth damage. First cutting of alfalfa just going into the stack. Grass starting slowly. Grasshoppers reported in some areas. Livestock in fair to good condition.

JUDITH BASIN: Scattered showers. Growing conditions good in western end of county; in eastern end stands are very poor generally and very little, if any, crop is expected. Range turning green in most of the foothills, but is below normal except in the extreme western and southern sections. Hay crop will be very poor. Only about 50% of the seeded acreage of grain will be harvested. If rains continue, most of the stock will be able to feed through until market time. In the drier areas, some of the stock has already been sold. Stock ranging in the mountain and foothill areas in good condition. Farmers asking for work.

LAKE: Weather has been unseasonably cool and cloudy all week. No frosts reported. Some scattered showers over all parts of the county. Very little irrigating being done. Growing conditions good for small grains and peas. Haying started, but cool damp weather not allowing proper curing. Pastures and ranges improving. Mormon crickets are being held under control, but are migrating from the range lands to cultivated fields in the west end of the county. Grasshoppers are reported in scattered areas throughout the county, but little poisoning being done.

LEWIS & CLARK - BROADWATER: Heavy showers in parts of Lewis & Clark County came too fast to be of greatest benefit. Broadwater County has received little moisture. Weather rather cool for best growing conditions. Beneficial effect of rains obtained previously are in evidence. Some emergency crops being planted. Cutting of first crop of alfalfa started this week. Pastures in good condition generally except possibly portions of Broadwater County, and stock in good condition. Wool being shipped out. Mormon cricket invasion of cropland stopped and under control in Wolf Creek area. Grasshoppers have been relatively inactive.

MADISON - JEFFERSON: Serious frosts reported in southern Madison County Thursday night. The hailstorm caused considerable damage to hay, grain, buildings, roads, and irrigation ditches in a strip approximately 5 miles wide and 60 miles long, running through Silver Star, Waterloo, Jefferson Island and the Eureka District. Grain crops making slow growth, and stands are not uniform. Most of the fields of potatoes rather slow. Sugar beet fields were seriously damaged by the hail. Several farmers have started cutting their sweet clover and alfalfa hay. Rains have decreased the activities of grasshoppers, but considerable grasshopper bait being used and larger quantities can be expected to be used when the weather warms up. Range conditions have been materially improved by recent rains, and livestock condition has also shown some improvement over previous weeks. Most of shearing has been completed.

MEAGHER: Two hot days and some wind reduced soil moisture. Cool days since have prevented damage. Late grain hay crop is short, but may improve with more moisture. Irrigated hay continues to do well. Livestock very good. Flies just beginning.

MISSOULA: Cool nights; warm days. Cloudy first of week; very little precipitation. Spring grain in most parts of county made much improvement during week. Cutting hay has started in all earlier localities in county. Crop is short. Probably three-fourths of normal. Sugar beets late, but making fair growth. Strawberry crop starting to come on market. Pastures and ranges improved from recent rains. Livestock condition also improving.

PARK: Scattered light showers. Warmer days, with cool nights. Frost two nights during the week. Generally favorable except for grasshopper damage in some sections. First cutting of alfalfa just getting under way. Grain crops somewhat late due to cold season, but are in fair condition. Livestock in good condition. Grass making good growth. Hopper and some cricket damage reported throughout the county.

PHILLIPS: Good growing weather, and two showers which averaged about .36 inch continued the improvement resulting from last week's rains. Much seeding of emergency feed crops has been done. Crops and ranges show general improvement, although more rain will be needed to bring spring grain crops to maturity. First cutting of alfalfa is about to become general. Many trying to combat the grasshopper situation. The general condition of livestock is mostly good.

spotted due to the effects of wind and drouth early in the season.

Most crops have made rapid progress since the rain, and fields that appeared to have been badly blown are looking much better. There have been some later seedings of mustard and some reseeding of barley and oats on land that had blown out. Most of the sugar beet fields are making very slow progress, but the good growing weather during the latter part of the week has resulted in improvement. Range grass has been making good growth. Much of the land that seemed to have very little grass heretofore has good feed at the present time. Little or no movement of livestock to market at this time. Grasshoppers appear quite thick in some areas near the Marias River.

PRAIRIE: Weather has been favorable for the acreage of crops still standing. Crops rapidly taking the moisture and rain is needed. Grasshoppers present in large numbers in all communities and are now moving in on crops. Livestock is improving in condition. No activity in local wool market. Range is green, but very weedy.

RICHLAND: Extreme heat of 95 to 100 degrees during the forepart of the week, with slightly cooler weather during the balance of the week. High winds caused some soil blowing. No precipitation was received this week, and the western portion of the county is dried up completely, with no crops or grass to any extent. The eastern part of our county is somewhat more favorable due to the local showers a week or so ago, which were followed by more moisture. Considerable late feed, such as millet, sudan grass, cane, and early maturing varieties of corn have been planted during the past week in the eastern part of the county. Alfalfa hay harvest is in full swing in the irrigated valley, with crops in general looking very good.

ROOSEVELT: Drouth continues unabated. No rain during past week. Total precipitation since April 1 is around .80 inch or less in most parts of the county. The hot days in the past week have been hard on late planted crops just emerging from the ground. Some fields still blowing badly, but approximately 80 per cent of the acreage is now protected with a cover of weeds and scattered grain. Hopper poison on hand, but little being used as farmers are not interested in putting out money or labor to protect a crop that is now considered gone. Cattle continue to move to market as expected June rains failed to come. Very little feed in sight for either fall or winter.

ROSEBUD: No precipitation during week. Growing conditions good. Temperatures about normal for season. Spring grain showed considerable revival, but is again beginning to need moisture. Alfalfa practically all cut. Very little damage reported to date from grasshoppers. Crickets have been spreading rapidly and are beginning to attack grain crops, some of which are a little too immature to make satisfactory feed crops. Range generally making good growth; will need additional rains soon to prevent premature curing. Both calves and lambs doing well with about normal percentages reported. Shearing about three-fourths completed. Fleeces are somewhat lighter than normal.

SANDERS: Precipitation .78 inch. Early part of week cloudy with rains; latter part clear and cool. Western half of county good growing conditions and good moisture supply; eastern half needing rain. Winter wheat well headed out, but short. Present moisture supply sufficient to mature fair crop. Cutting first crop alfalfa under way; about 50 per cent normal crop. Spring grain in good condition, but will need rain soon. Gardens and truck crops good. Prospects for good fruit crop. Livestock in good condition. Lower range dried out. Cattle and sheep moving to higher altitudes on forest permits.

SHERIDAN: One light sprinkle; high winds for three days. Temperature up to 100 degrees for one day. Only a few scattered fields are left, which might produce a small amount of seed. Shipments of livestock increasing rapidly; about 50 to 60 per cent going out by truck. Some ranchers shipping to pasture in North Dakota. 75 to 90 per cent of livestock will be moved from county if rains do not come. Increased need for work. Grasshoppers hatching in scattered areas.

STILLWATER: Generally cool, with temperature reaching 100 only one day. Winter wheat and other grains making good growth. First rutting of alfalfa started throughout county. Beets and other intensive farming crops look good. Cricket situation still serious, with farmers making a determined stand to save crops in cricket areas by dusting and spreading cricket poison. With abundance of grass, stock are in good condition. Shearing in full swing. Shortage of men willing to do ranch work.

SUN RIVER PROJECT: Scattered showers during week amounted to .39 inch. High winds latter part of week drying fields. Crops growing fair. Some fields of peas showing poor stands from cold weather, especially fields irrigated after seeding. Pastures improved from recent rains.

TETON: Warm days this week, with the recent precipitation, has been ideal for growing conditions for crops. .36 inch precipitation for week. Rather high winds the foregart of week that caused continuation of soil blowing in some areas. In spite of the splendid rains the past two weeks, crops that were damaged by winds are not recovering rapidly. There has been a considerable acreage reseeded to emergency forage crops. 4,000 acres has been seeded to mustard within the last 10 days or two weeks. A heavy rain hit the Power area the first part of the week, which did considerable damage to soil washing and some reservoirs gave way. Revised estimate with normal conditions for the balance of the season—the best that we can expect is 50 per cent of a normal crop. The early seeded wheat is heading and is very thin and short. We also find that there is considerable stooling in the early wheat.

(Continued on Page 4.)

ounty Summaries of Grey Conditions for Week Inding June 25, 1937 - Page 3.

County Summaries of Crop Conditions for Week Ending June 26, 1937 - Page 4.

TETON: (Contid.) Range condition as well as cattle condition continues to improve.
75 per cent shearing completed.

Toole: Two days of high wind during past week. Precipitation varied from light to heavy cloudbursts in various sections of the county. Spring wheat generally in very good shape, although some fields are quite spotted due to cutworm and in some cases to soil erosion damage. The first mustard seedings were very spotted. All mustard has been reseeded and part of it has a very good start after the rains. Winter rye is in excellent shape. Feed crops are similar to wheat. Considerable late seeding has taken place for feed crops.

VALLEY: The week has been characterized by hot weather, with considerable winds.

Local showers in west-central section of the county, and a small area
received moisture around Larslan. Rain is needed. Winds are causing considerable
soil drifting, particularly in the Larslan-Avondale area and Center Community,
south of Mashua. Crops seeded even in areas receiving moisture still doubtful
as to whether they will make any crop or not. Many fields will not make feed, and
very little pasture. Considerable seeding of oats, millet, corn, and sudan grass
in the localities which had received moisture in the last ten days. Shearing in
full swing. Fleeces are running a trifle light. Stock water not a problem at this
time. Range in northwestern portion of the county fair and along the irrigated section some range. Cattle as well as sheep looking fair; some stock being moved out
of the county. Hoppers are moving in, particularly in irrigated sections.

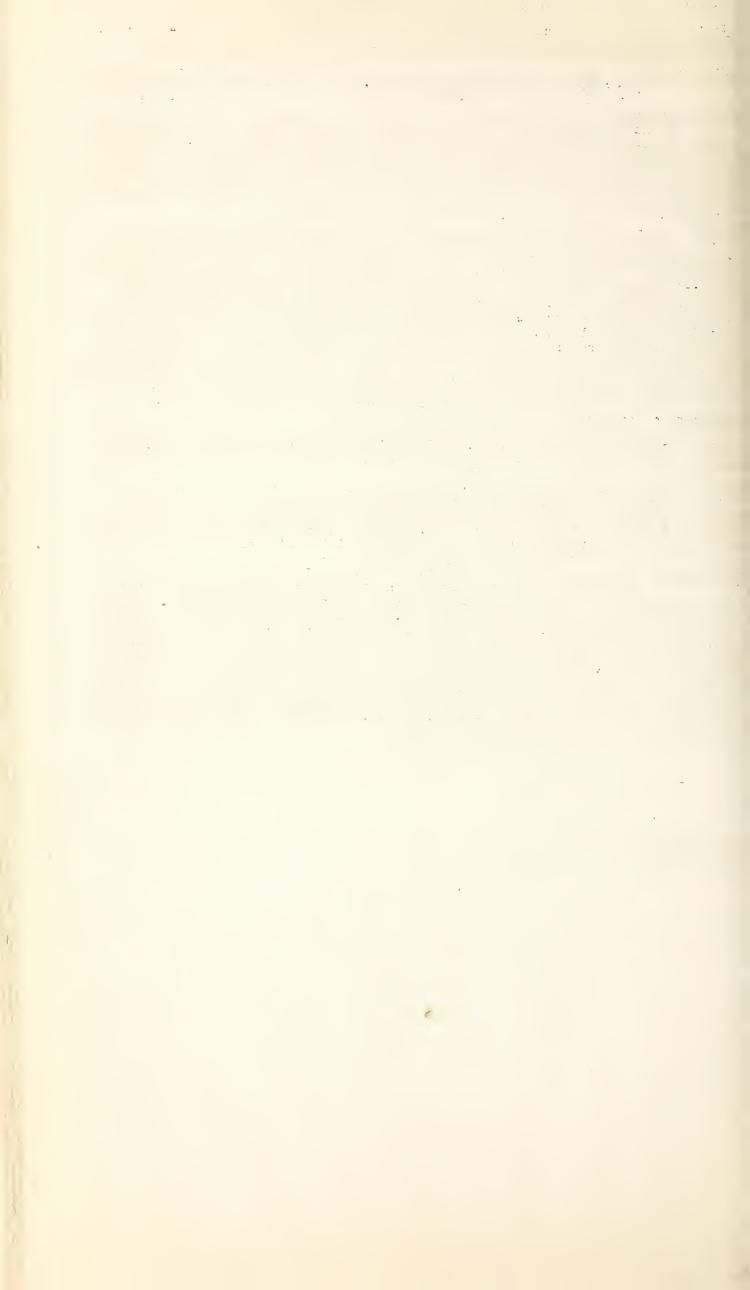
WHEATLAND: Dry during the week; no moisture. Crops in northern part revived by rains two weeks ago. Grass is good in western and northwest part of county. Grass started after recent rains is beginning to burn in the central and eastern part of county.

WIBAUX: Good growing conditions. High winds with soil blowing on June 23rd. Grasshoppers very bad. Poison campaign in full swing. Lack of poison is hampering campaign. There will be some grain and feed if grasshoppers can be controlled. Trace of precipitation during the week. A large acreage of emergency feed crops has been planted. Ranges are improving.

YELLOWSTONE: Growing conditions excellent. Winter wheat dryland areas fair to good, with grain all headed out. Condition of irrigatedaareas good with the exception of areas irrigated by ditches washed out by the flood. Several ditches started running water this week, but the B.L. & I. ditch will be without water for about three weeks longer. Much of the truck gardening areas irrigated under this ditch. Haying in full swing. Some winter rye being cut. Beans and beets excellent. Livestock all in good shape. All labor being employed in rehabilitation of ditches, farms, fair grounds, and on cricket control work. Crickets continue to menace south side of the Yellowstone River; are spreading considerably and insufficient labor allowed to clean out the infestation. Crickets have damaged winter wheat about 1) per cent, and are working on heads and stems badly. Very little damage done from grasshoppers to date.

Helena, Montana,

June 30, 1937.



UNITED STATES DEPARTMENT OF AGRICULTURE Weather Bureau — Dureau of Agricultural Economics

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA For the Week Ending Tuesday, July 6, 1937.

Issued jointly by the Division of Crop and Livestock Estimates and the Weather Bureau.

Offices: Fourth Floor, Federal Office Building, Helena, Montana.

The week was abnormally warm and featured by the highest temperatures of the season to date. Readings of 100° , or higher, were recorded in most of central and eastern Montana on the 4th and 5th, with highest readings of 110° reported from Glendive and Poplar on the 5th. The hot sunny weather was fine for irrigated crops, but caused some injury to dryland crops, and emphasized the need for good rains generally. Showers occurred in every section on one or more days, and while considerably more than last week, were of beneficial proportions to only about one half of the State. The supply of irrigation water declined sharply in some southwestern counties, but held up well in other sections, although some difficulty was encountered in getting the water on fields fast enough. A change to cooler weather at the close of the week brought some relief to drying crops and ranges.

Dryland crops in the extreme northeast are practically a total failure as a result of drought and soil-blowing. In other sections their general condition ranges from fair to good. Hot weather has caused winter wheat to ripen rapidly with most of the remaining crop made insofar as future moisture conditions can affect it. Spring wheat stands have been coming along rapidly, despite some heat injury, but are uneven over much of the area east of the Divide, and in common with other spring grains need rain for maturing. Uneven stands are expected to make harvesting difficult. Small grains are heading, and much on short straw. Wheat production this year will be below average, but still considerably better than the very short crop of 1936. This is also apparent of other small grains. Sugar beets have been making splendid progress after a late thinning season. The condition of beets is fair in the northeast, but good to excellent elsewhere. Sugar beet production will likely be larger than last year with considerable increase in hay production. Peas have suffered a 25 to 75% damage from disease in Flathead County, but are excellent in other districts. Beans, potatoes, and gardens are doing well. Corn and late forage crops have been making more rapid growth as the result of hot, sunny weather.

Haying made good progress. While first cutting alfalfa yields have been below normal, they have shown good quality and quite equal to last year's production. The second crop has started well in most areas. The alfalfa seed crop is in full bloom. Crested wheat grass is reported heading, as also many native grasses.

Ranges and pastures have begun to show the effects of hot weather and lack of moisture. Higher ranges generally are doing well. In the northeast feed is scanty or lacking because of continued severe drought conditions. The bulk of vegetation on many other eastern ranges consists of weeds which are beginning to turn brown from the extreme heat. South of the Yellowstone and west of the Divide, grass is reported good to excellent. Good rains are needed for most ranges and pastures.

The condition of livestock improved with the exception of the extreme northeast, where drought conditions have necessitated further shipment to market and outside pastures.

The insect situation remains about the same. Blister beetles have been reported particularly damaging in east-central counties, and the worst grasshopper outbreak is reported in Wibaux County's history.

TEMPERATURE AND PRECIPITATION DATA WEEK ENDING JULY 6, 1937

Temperature		Synshine % of	Precipitation (inches &hundredths) Total Since April 1-				
H:	ighest	Lowest	Possible	This week	April 1, 1937	July 7, 1936	
Billings	106	64	*	0.12	6.31	3.66	
Bozeman	93	50	*	3.73	7.86	4.39	
Cut Bank	96	45	*	3.04	5.63	3.38	
Fort Peck	108	57	*	0.09	3.07	3.31	
Glendive	110	53	*	0.61	4.39	2.57	
GreatFall	s 101	54	*	0.16	3.84	4.34	
Havre	104	58	82	0.09	4.64	2.45	
HELENA	97	54	79	0.27	3.40	4.18	
Kalispell		48	92	0.79	5.00	3.48	
Lewistown	98	5 0	*	0.27	4.74	5.43	
Malta	103	60	*). 30	5.50	2.24	
Miles Cit;		66	88	0.24	3.84	1.50	
lissoula	100	54	82	0.03	3.00	4.11	
oplar	110	54	*	0.08	1.41	2.22	
Torica 1077 No. 17 W. T. Marchen Worthern Dances & No. date							

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ruly 7, 1937

W. E. Maughan, Weather Bureau * No data Jay G. Diamond, Divn. of Crop & Livestock Estimates.



The following county summaries of crop conditions for the week ending July 3, 1937 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: No precipitation; warm; some winds. Some crops starting to burn; water being released from Lima Dam; outlook not as good as a week ago; some alfalfa being cut. Shearing still on. Two clips reported sold last week; grass good, but needs moisture. Grasshoppers being poisoned on crop land in the Lima Dell area.

BIG HORN: Extremely warm with two local showers. Growing conditions not so good and need of additional moisture is general over the northern half of the county where the range is burning. The southern half of the county is in good shape yet. Valley crops in good condition, beets making splendid progress after a late thinning season. Livestock in good condition. Crickets still menacing. Grasshoppers doing less damage than was anticipated. About 200 men working on the cricket control project.

BLAINE CO: No precipitation. Temperatures around 100 degrees for three days. All crops except those on irrigated lands showing signs of lack of moisture. First cutting alfalfa well under way with yields about equal to last year. Sugar beets and other crops on irrigated land showed rapid growth this week. Crasshoppers doing some damage to grain fields. Poison bait being spread by most farmers south of the Milk River. No hopper or hopper damage reported north of Milk River. Shearing will be completed about the middle of next week. All classes of livestock show considerable improvement. The range will need additional moisture soon in order to carry the stock until normal shipping season.

CARBON: Precipitation .07 inch in the Red Lodge area, none elsewhere.

Weather hot and dry. Both winter and spring wheat looking good.

First crop of hay showing good yields. Water supply sufficient thus far. Crops in general are good all through the county. There is quite a grasshopper infestation in certain sections of the county. The cricket situation remains serious, with approximately 200 men at work in the county. Livestock conditions fair, ranges beginning to dry. Labor situation short.

CASCADE: Hot dry winds and no precipitation the past week. Spring wheat is starting to burn and without moisture within the next few days will have little chance of producing a crop. Many of the winter wheat fields in the southern part of the county will produce some wheat without further precipitation. Ranges still in good shape and crop prospects on irrigated land are excellent. Farmers are well along with their irrigating. Thinning of sugar beets is about complete and the first hoeing is well underway. Farmers putting up first cutting of hay and weather has been ideal for this work. Livestock are still in excellent condition with ample range for livestock on hand. Grasshopper damage is very limited. The cricket program continuing.

CHOUTHAU: Practically no precipitation, very warm weather with temperatures rising to over 100 degrees. Too hot for ideal growing conditions. Wheat very spotted, however many fair yields are in prospect as yet, but hot dry weather is doing much damage and additional rain will be needed in the near future. Alfalfa crop generally rather short. Range conditions continue to improve, no movement of cattle is reported. Some wool being shipped out.

Mormon cricket control work continuing in full force. Hopper damage reported in some areas and bait is moving.

CUSTER, POwDER RIVER: Warmer with few scattered local thunder showers. Rain nesded on both dryland crops and range. some key being cut on flood irrigation projects. Alfalfa acreage insignificant this year.

Many new stands are still doing good where flooded. Beets and other irrigated crops continue to do well. Range improves southward, but still dry in the North. All areas can use rain. Weeds seem to make up a bulk of vegetation this year and now beginning to turn brown. Livestock continue to do well. Grasshoppers not doing damage expected. Crickets have crossed Powder River to the southeast. Damage reported to crops and gardens.

Daniels: No precipitation. Winds subsided with no dust storms of any intensity during week. Severe hot weather prevailed with the temperatures hitting 107 and 108 degrees during Tuesday and Wednesday. Crop conditions unchanged, indicating total failure. Continued shipment of livestock to market and outside pastures prevailed. Approximately 100 carloads have left the county. Blister beetles are working some on gardens. Grasshoppers are making growth, but exist only in some localities.

DAWSON:

Generally hot, with scattered showers, but not extensive enough to be of any considerable benefit. The conditions in the northern end of the county none to favorable, and crops are thin. Other areas appear to be developing fairly satisfactorily, with early grains heading and chances of maturing reasonable. Corn generally is slow. Alfalfa seed crops are in full

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bloom. Late planted forage crops are coming slowly. Grazing conditions in most of county are favorable at this time; but some small areas still short of grass. Hopper damage in more or less scattered areas. Some control measures are in progress. Blister beetles are demaging gardens and potatoes.

FALLON, CARTER: Growing conditions fair to good. Small grains headed out showing good growth. Grasshopper damage being reported. Livestock continue to show good gains. Grass excellent although many weeds are noticeable. Ranchers will cut sufficient quantity of wild hay to winter stock as well as a lot of grass remaining for fall and winter grazing. Livestock prospects as far as feed situation is concerned are good.

FARGUS: Hot dry weather of past week beginning to show some damage to grain crops. Scattered showers in east part of county. Spring wheat continues to make good growth. Some farmers cutting grain for hay due to grass-hoppers. Grasshoppers beginning to do considerable damage to range land. Grass continues good in most parts of county. Grasshopper poison moving in large amounts during past week.

FLATHEAD: First part of the week hot. A good shower on Tuesday, with cool weather the latter part of the week. The hot weather showed up a number of fields that needed moisture quite hadly, especially peas which are generally infected with a root rot disease. The damage to peas will run from 25% to 75%. The rain Tuesday night helped all crops. Growing conditions have been ideal for small grain crops the latter part of the week. Alfalfa is being cut and yields will probably run a little lighter than the first cutting last year. Condition of livestock is very good with plenty of feed on ranges and in pastures. Labor adequate.

Gallatin: Generally clear. Gradually increased temporatures. Cutting and stacking of hay in full swing. Hay being put up in excellent shape and good crops reported. Winter wheat ripening fast and will mature a good crop in most cases without any further moisture. Spring grain showing effects of dryness, in west and north portions of the county. Some water shortage apparent in the Gallatin River whereby three of the main canals have now been cut to half capacity. Range bands of sheep and range herds of cattle now generally on Forest Service pasture.

but moisture is needed budly. A quick shower at the end of the period gave beneficial moisture in the Jerdan area. Early seeded crops have about 25% of a chance to come through for seed and feed. Late seeded corn and other feed crops have made fair starts generally, but moisture is needed. Grasshopper damage progresses more rapidly with the higher temperatures but is in limited areas. Livestock condition good, very little movement at present.

GLACIER: A few slight showers this past week, not enough to effect soil meisture conditions. Some soil still blows. Temperatures generally warmer. Some winter rye harvested for hay. Early wheat generally in the boot, some that was not blown is heading out. Oats heading. Alfalfa being cut. Crop looks good. Blown areas made some fields very very spotted as to growth and conditions. Livestock in excellent shape. There is a market here for good stock. No change in labor situation. Ground drying out. A good rain now would insure a good crop.

HILL: Trace of precipitation for the most week. Ideal growing conditions during past week. No wind has hastened crop growth. Ranges improving very slowly. More moisture needed to improve range conditions and to continue crop growth. Livestock in fairly good condition. Labor situation, balanced.

JUDITH BASIN: Temperatures warm. Frecipitation at Stanford .05, scattered showers throughout county. Soil moisture below normal. Some soil blowing during past week. How y infestation of grasshoppers. Livestock still in good condition in foothills and mountain areas; also in western part of county. Range fair.

Lake: Light showers scattered over most of county. Whather hot but normal for this season. Having in full swing with good yields. Grain well headed and winter grains starting to ripen. All crops making rapid growth. peas in full bloom and show prospects of excellent crop. Livestock in good condition. Grasshoppers and crickets being held under control.

LEWIS & CLARK, FROADWATER: Hottest period to date this year which was fine for irrigated crops, but caused burning of much dryland grains. Light showers in localized cross in both counties. Dryland crops in need of moisture. Irrigated crops, where sufficient moisture is available, are doing well. Broadwater dryland crops are in less favorable. condition than



Lewis & Clark. Grass in general is in need of more moisture. Winter feed may be a problem in both counties. Grasshoppers not as active as expected. Mormon crickets increasing in numbers and a new band discovered near Sciben.

MADISON-JEFFERSON: Hot and dry throughout week with only trace of precipitation. Hot winds have removed much of the surface moisture and supplies of irrigation water are rapidly deere sing. Hying progressing with only fair yields in most instances. Some wheat has been abandoned due to grasshoppers, with most of the grain and pea crops below normal as to stand, and many fields suffering from lack of moisture. Recent ramins improved lower ranges sufficient to a rry sheep until the Forest season opened. Feed supplies on ranges on the Forest Reserve above 5800 feet elevation reported to be good, while below 5600 feet elevation the feed supplies are poor. Stock are generally in good condition at the present time. Labor is short with several men looking for more help for haying.

MEAGHER: Hot, no precipitation last week, range drying rapidly. Grass curled, but not yet brown in lower country. Crops not yet damaged. Irrigated crops okay, although all yields will be a little below average. Livestock in good condition. Heat and flies bothering. Temporary slack period-in labor, little to report. Irrigation water already beginning to be short. Grasshopper menace increasing in proportion to heat.

MISSOULA: Hot and dry all week. Sone small shower that was of no particular benefit. Haying is started in all parts of county except higher mountain valleys. Yields about 75% of normal. Wheat heading out. Yield prospects being reduced by hot we ther. Sugar beets and potatoes making good growth. Strawberry first crop in full production. Yields less than normal. Irrigation water plentiful from Missoula river but low from other streams. Lower pastures dryed up. Higher ranges still in good condition.

GOLDEN VALLEY, MUSSELSHELL: Warm. Two days of wind. Scattered shower, but no general rain over the two counties. Spring wheat showing effects of heat, and short ge of moisture. The winter wheat in several areas is just about made, with prospects of a good crop unless something unusual happens very quickly. Corn and some of the other emergency feed crops are coming along very rapidly. Livestock are in the best condition in these two counties that they have been at this time of the year for seven or eight years.

PARK: Warm weather prevailing during week with above 90 degrees recorded several days. Grains and grasses doing well. First crop of alfalfa haying well under vay. Livestock in fairly good condition. Farm labor scarce at Farm Labor vages. Cricket control work increased as result of increased appropriation. About two tons of grasshopper poison being distributed daily.

PHILLIPS: Hot and dry with one local thunder storm, registering 0.30 inch of rain in central part of county. Recent rains have improved prospects for feed crops. Wheat generally poor. Corn, millet and other feed crops being seeded. Conditions in the irrigated section very good. Range has improved to such extent that it will not be necessary for stockment to ship out until fall.

PONDERA: Light shower during week, otherwise hot forepart with cooler latter part. Wheat is irregular in stand following the rains. Considerable resceding was done immediately after the heavy rains on June 12th and making splendid growth with moisture and heat. Prospects of crop production appear lover at this particular time due to sum blight on lower leaves giving small grains a set back. By and large feed crops are uniformly good following the rains and will undoubtedly mature for ample feed reserves. New hay seedings are thin but additional alfalfa and sweet clover shoots beginning to appear. Pastures again need rain. Insect activity showing effect, but grass still growing good on the range, the anticipated movement of livestock to market by reason of drouth prior to rains has not developed, except the occassional sale of a few steers. Leased range shows plenty of grass for carrying livestock this year. Labor balanced.

PRAIRIE: Weather very hot and dry until Thursday night when light showers were received which cooled the atmosphere. Crops suffering from lack of moisture and burning in the hot weather. Crops revived somewhat after the showers of Thursday night which cooled the weather considerably. Grasshoppers have been moving in on crops from the idle and range land. Livestock improving in condition. No activity in the wool market. Supply of labor is ample.

RICHLAND: Extremely warm and dry throughout the week with no precipitation except a few sprinkles on Thursday night. Grain crops in the dryland are beyond recovery, except a few scattered fields in two or three communities. The possibility of getting some corn as feed and some late for ge crops is still good providing sufficient moisture is obtained during the next two or three weeks. Fermors in general are depending entirely on getting those feeds for a feed supply. The first cutting of alfalfa is about 3/4 completed in the irrigated valley and the balance of the farmers will complete haying operations next week. Sugar beets and other small crops are doing very well in the irrigated valley expecially where they were cultivated early and water was applied early.

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*Ranges and water holes are drying up. Many stockmen in the western pertion of the county will be moving their livestock within a week unless moisture conditions improve. Poisoning of grasshoppers progressing in a few communities, especially in the irrigated territory, mainly in the Savage area.

ROOSEVELT: Drouth continues, no rain during past week. No change in crop conditions. Prospects for any late feed crops very poor. Livestock movement continues. Some loss from dust pneumonia among cattle on abandoned grain fields. Hopper control being attempted on a few farms but poisoning operations will be very limited.

ROSEBUD: Hot weather entire week. Few scuttered showers of little benefit.

Dry land crops deteriorating rapidly from intense heat and cricket damage. Irrighted crops excellent. Irrighted wild mediows yielding fair crop of hay. Corn growing rapidly with increased temperature. Additional moisture will be needed soon in order to continue growth. Livestock generally doing well. Grass in south half of county sufficient for season. Weeds furnishing bulk of feed in north half. Feed may become short in this area after weeds dry up.

SANDERS: Precipitation .Ol. Generally fair and warm. Crops making rapid growth. Winter wheat ripening with apparent moisture for good quality. Outlook for about 65% of normal crop because of poor stand from deficient moisture last fall and early spring. Spring grain heading out and making rapid growth but will need rain soon. Harvesting first cutting hay in full swing under ideal weather conditions. Livestock in good condition, mostly on higher range which is in fine condition.

STILLWATER: Hot days and nights during tek. All crops making rapid growth. Continuation of hot weather will the early ripening. Rain at this time would be very beneficial. Haying in full swing. Mormon crickets serious threat to crops. Livestock in good condition. Shearing pretty well completed. No wool moving. No surplus of labor.

SUN RIVER: Weather dry and hot. Moisture from recent rains pretty well depleted. Farmers rushing irrigation of small grain and seed peas. First cutting of hay just starting, grass still holding up. Ample labor.

SWEET GRASS: Trace of precipitation. Crops on irrigated lands growing rapidly.

Dry land crops showing effects of dry weather. 25% of haying is under way. Alfalfa 60% killed out. Crop very light. Natural grasses good. Fall rye hay in stack. Needing rain baddly. Grass is headed and starting to cure. Shearing is completed. Wool moving out rapidly, on contract and consignment. Some feeder lambs being contracted. Livestock of all kinds doing well. Insects (crickets and grasshoppers) are bad in spots.

Abnormally high temperatures the past week. A few scattered thunder showers of no appreciable good. Good growing weather this past week. Late crops coming along as good as can be expected. Early seeded wheat heading out, but very short. Some alfalfa haying started, with a crop possibly a little lighter than normal. Three reservoir and canal companies in the county have been able to store up a little water during the June rains, so that they will be able to do some irrigating this month. There has been some increased hopper activity in the Fermington area, but plenty of poison is on hand to take care of them. Another good rain will be needed within a few days. Shearing nearing the completion mark.

TOOLE: Weather hot throughout week. A few light showers with a trace of moisture. Some of the thicker stands of wheat have burned slightly during the past week. Reseeded mustard coming in good shape. Some of the crops reseeded near Galata and which received several cloudbursts and rains are not doing very well.

The fields have crusted. The wheat acreage is between 75% and 80% of a full stand, some areas having very good stands and others thin, due to the windblowing, cutworms, and crusting. Shearing operations started and in full swing. Pastures and ranges in good shape throughout entire county. Labor, plentiful.

VALLEY: Extremely hot dry weather with some winds causing soil drifting, with light scattered showers particularly along the river. In the northeastern section of the county crops are completely gone. In east central, northeantral, and western part of the county with rain they will get some feed. Range is somewhat improved in the central and western portion of the county from recent rains. Considerable late feed, such as corn, outs, rillets and cane have been seeded, but these are making very poor headway. Irrighted crops are improving the last week. Howesting of alfalfa hay is in full swing at this time. Sugar beets are looking fair at this time. Livestock are holding their own. Shearing has been completed. Fleeces show a heavy shrinkage. Some of the large sheepmen feel that they have grass enough to get by until sometime in August. Cattlement in northern part of the county are short on grass. No labor needed. Grasshoppers are bad in the range area and in some sections of the irrighted valley.

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WIBAUX: Wern weather during the week. Precipitation at Wibaux 0.37 inch. Crops beginning to burn. Worst outbreak of grasshoppers in history of county. Poisoning campaign in full swing. Good results from poisoning, but hoppers too numerous. Farmers trying to save crops for feed. Wheat harvest will be very small. Early wheat is now being cut for hay. Ranges deteriorated since last week because of hot dry weather.

WHEATLAND: Light showers during the week. Extremely hot during day; grass and crops burning badly. Stockmen holding permit to move sheep to forest reserve for summer. Wool has been moved out of the county in small portions. Shearing practically completed.

YELLOWSTONE: Extremely hot. Growing conditions excellent in all areas except that area under B.L.and I. ditch, which is still under repair. Winter wheat south of the Yellowstone River excellent. Winter wheat north side of river fair to average. Crops under irrigated project in good shape. Haying about completed. Livestock in good shape. All labor being employed in rehabilitation of ditches, fair grounds and cleaning up on renches and in the city of Billings, as well as on the cricket control campaign. Crickets extremely bad and doing considerable damage on south side of river. Approximately one-fourth of what is still a bumper crop destroyed by crickets with possibility of much more damage before harvest starts. Very little damage from grasshoppers.

